



NEC3 Engineering & Construction Contract

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

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

for Conversion of Old Simulator Building to Auditorium

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

CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:	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>	[•]
[to be inserted from Returnable Documents at award stage]	
C1.3 Proforma Guarantees	[•]

C1.1 Form of Offer & Acceptance

• **Offer**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of: **Conversion of Old Simulator Building to Auditorium**

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

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

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

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

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

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

• **Acceptance**

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

The terms of the contract, are contained in:

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

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

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

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

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

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

.....
(Insert name and address of organisation)

Name &
signature of
witness

Date

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

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

Note:

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

No.	Subject	Details
1	Skilled and non-skilled employees	The <i>Contractor</i> will develop local skilled labour at Kriel. The employer shall hire non-skilled employees from Kriel community. The list of potential employees from Kriel community will be provided by Matla Power Station.
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]

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

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

• **For the tenderer:**

• **For the Employer**

Signature

.....

.....

Name

.....

.....

Capacity

.....

.....

On behalf of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name & signature of witness

.....
.....

.....
.....

Date

.....

.....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

[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.

1. Some ECC3 options are always selected by Eskom Holdings SOC Ltd. The remaining ECC3 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 the 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	
		A: Priced contract with activity schedule
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X5: Sectional Completion
		X7: Delay damages
		X13: Performance Bond
		X17: Low performance damages
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The <i>Project Manager</i> is: (Name)	Jorine Botha

Address	Matla Power Station Delmas road Kriel 2271
Tel	017 612 6563
Fax	N/A
e-mail	Bothaj1@eskom.co.za

10.1	The <i>Supervisor</i> is: (Name) Address Tel No. Fax No. e-mail	N/A
11.2(13)	The <i>works</i> are	Conversion of the old Simulator Building to auditorium
11.2(14)	The following matters will be included in the Risk Register	1. Non-compliance to statutory SHE and legal requirement which could result to injuries, near misses and penalties. 2. Damage to tubes during installation and injuries to people. 3. Poor system performance due to poor workmanship 4. Excessive dust 5. Disease outbreak 6. Covid-19
11.2(15)	The <i>boundaries of the site</i> are	Matla Power Station, site allocated for this project
11.2(16)	The Site Information is in	Part 4: Site Information
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	2 working days
2	The Contractor's main responsibilities	Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.
3	Time	

11.2(3)	The <i>completion date</i> for the whole of the works is	[•].												
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<table border="1"> <thead> <tr> <th><i>Condition to be met</i></th> <th><i>key date</i></th> </tr> </thead> <tbody> <tr> <td>1 Start of construction work activities</td> <td>[•] 04 June 2024</td> </tr> <tr> <td>2 Site measurements, Procurement and fabrication of equipment</td> <td>[•] 04 June 2024</td> </tr> <tr> <td>3 Supply of all equipment</td> <td>[•] 17 June 2024</td> </tr> <tr> <td>4 Installation of new equipment</td> <td>17 June 2024</td> </tr> <tr> <td>5 Inspections and commissioning</td> <td>12 August 2024</td> </tr> </tbody> </table>	<i>Condition to be met</i>	<i>key date</i>	1 Start of construction work activities	[•] 04 June 2024	2 Site measurements, Procurement and fabrication of equipment	[•] 04 June 2024	3 Supply of all equipment	[•] 17 June 2024	4 Installation of new equipment	17 June 2024	5 Inspections and commissioning	12 August 2024
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30.1	The <i>access dates</i> are:	<table border="1"> <thead> <tr> <th>Part of the Site</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1 [•] Simulator Building</td> <td>[•] 04 June 2024</td> </tr> <tr> <td>2 [•]</td> <td>[•]</td> </tr> <tr> <td>3 [•]</td> <td>[•]</td> </tr> </tbody> </table>	Part of the Site	Date	1 [•] Simulator Building	[•] 04 June 2024	2 [•]	[•]	3 [•]	[•]				
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1 [•] Simulator Building	[•] 04 June 2024													
2 [•]	[•]													
3 [•]	[•]													
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	1 weeks of the Contract Date.												
31.2	The <i>starting date</i> is	[•] 04 June 2024												
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 weeks.												
35.1	The <i>Employer</i> is not willing to take over the works before the Completion Date.													
4	Testing and Defects													
42.2	The <i>defects date</i> is	52 weeks after Completion of the whole of the works.												
43.2	The <i>defect correction period</i> is	2 weeks												
	except that the <i>defect correction period</i> for SHE requirements is	1 week												
	and the <i>defect correction period</i> for	2 weeks												
5	Payment													
50.1	The <i>assessment interval</i> is	between the 25 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	30 days												
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South												

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

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

6 Compensation events

60.1(13) The place where weather is to be recorded is:

The *weather measurements* to be recorded for each calendar month are,

Matla Power Station main security area

the cumulative rainfall (mm)

the number of days with rainfall more than 10 mm

the number of days with minimum air temperature less than 0 degrees Celsius

the number of days with minimum air temperature more than 35 degrees Celsius

the number of days with snow lying at 09:00 hours South African Time

and these measurements:

The *weather measurements* are supplied by

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:

and which are available from:

South African Weather Bureau

Matla Power Station and surroundings

the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer*

60.1(13) Assumed values for the ten year return *weather data* for each *weather measurement* for each calendar month are:

As stated in Annexure A to this Contract Data provided by the *Employer*.

Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.

7	Title	Refer to NEC 3 ECC Black book
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	None
9	Termination	Termination of the contract is subject to clause 90 of NEC3 Engineering Construction Contract
10	Data for main Option clause	
A	Priced contract with activity schedule	As defined in clause 11 of NEC3 Engineering Construction Contract.
60.6	The <i>method of measurement</i> is	As stated in Part C2.1, Pricing Assumptions.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	TBA
	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 London Institution of Civil Engineers. (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	[•] 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
	- if the arbitration procedure does not	of the Association of Arbitrators (Southern
	- state who selects an arbitrator, is	Africa) or its successor body.



12	Data for secondary Option clauses		
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.	
X5	Sectional Completion		
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	Section	Description
			Completion date
		1	[•]
		2	[•]
		3	[•]
X7	Delay damages (but not if Option X5 is also used)		
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	R[•] per day up to a limit of R[•]	
X16	Retention (not used with Option F)		
X16.1	The <i>retention free amount</i> is	R[•].	
	The <i>retention percentage</i> is	[•]%	
X17	Low performance damages		
X17.1	The amounts for low performance damages are:	Amount	Performance level
		R [•]	for [•]
		R [•]	for [•]
		R [•]	for [•]
		R [•]	for [•]
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	
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of <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> assets policy for correcting the Defect (other than the 	

		resulting physical damage which is not excluded) plus the applicable deductible as at contract date.
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	the total of the Prices other than for the additional excluded matters. The <i>Contractor's</i> total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for <ul style="list-style-type: none">• Defects due to his design which arise before the Defects Certificate is issued,• Defects due to manufacture and fabrication outside the Site,• loss of or damage to property (other than the <i>works</i>, Plant and Materials),• death of or injury to a person and• infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	(i) 10 years after the <i>defects date</i> for latent Defects and (ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter. A latent Defect is a Defect which would not have been discovered on reasonable inspection by the <i>Employer</i> or the <i>Supervisor</i> before the <i>defects date</i> , without requiring any inspection not ordinarily carried out by the <i>Employer</i> or the <i>Supervisor</i> during that period. If the <i>Employer</i> or the <i>Supervisor</i> do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the <i>Employer</i> or the <i>Supervisor</i> to have discovered the Defect.
Z	The <i>Additional conditions of contract</i> are	Z1 to Z15 always apply.
Z1	Cession delegation and assignment	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.	

Z2 Joint ventures

- Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

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

Z4 Confidentiality

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

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

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

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

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

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

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

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

Z8 Notifying compensation events

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

Z9 Employer's limitation of liability

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is

limited to R0.00 (zero Rand)

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

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

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

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

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

Z12 Ethics

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

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

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

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

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

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

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

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

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

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

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

or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

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

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

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

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

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

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

INSURANCE TABLE A

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

of and in the course of their employment in connection with this contract	law
---	-----

Z 13.2

Replace core clause 87 with the following:

The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

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

Z14 Nuclear Liability

- Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

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

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

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

- Z15.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z15.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

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

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

General

The Matla Power Station is situated approximately half way between Bethal and Ogies on the R545, being just over 30 km from each town and 13 km north-west of Kriel town.

Climate

Matla Power Station is situated in a summer rainfall area with an average annual precipitation of about 750-mm falling almost entirely during the months of October to April. The average rainfall per month generally exceeds 40 mm during this period, although drought periods do occur which can last for 20 days or longer. Drought periods occur most frequently during the months of October/November and March/April. January is statistically the highest rainfall month with an average monthly rainfall of about 130-mm. June has the lowest rainfall with an average monthly rainfall of about 7 mm.

Approximately 85% of the annual rainfall occurs in the summer months and heavy falls of 125 to 150 mm occasionally occur in a single day. The annual average number of thunderstorms is about 75. These storms are often violent with severe lightning and strong (but short-lived) gusty winds and are sometimes accompanied by hail. This region has among the highest hail frequencies in South Africa; about 4 to 7 occurrences (depending mainly on altitude) may be expected annually.

January is normally the hottest month with an average daily maximum temperature of 27°C with a mean daily temperature in winter being about 16°C. Winter average daily temperatures vary from 18, 5°C maximum to -1°C minimum. The extreme temperatures recorded range from 34, 7°C to minus 12, 4°C for the period 1920 - 1984. (Source: Weather Bureau, Pretoria)

Winds are generally light to moderate except during thunderstorms. Generally the prevailing wind directions are from the North West during the day and from the east at night. During daytime, the prevailing winds are from the north-western direction. During night-time, the prevailing winds are from the north-eastern direction. The highest recorded average wind speed is 17, 6 km/hour. The average wind velocity over the year is 14, 5 km/hour.

(Source: MSN weather & Weather 24, average records 2008 - 2009.)

Weather Data

THE ASSUMED 1 IN 10 YEAR RAINFALL FIGURES ARE:

Month	Cumulative rain (mm)	No of days with rainfall > 10mm
January	200	6
February	150	6
March	120	5
April	110	4
May	40	3
June	20	2
July	30	2
August	30	2
September	60	3
October	140	6
November	160	7
December	170	6

Relative Humidity

Month	Weather measurement				
	Cumulative rainfall (mm)	Number of days with rain more than 10mm	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT	[Other measurements if applicable]
January	104.0	5	20.6	13	
February	24.5	4	19.0	9	
March	71.0	2	18.2	9	
April	70.0	3	16.9	6	
May	8.1	1	13.6	4	
June	0	5	16.1	1	
July	0	3	9.1	1	
August	1.0	5	10.3	1	
September	79.5	7	18.3	7	
October	76.0	1	17.8	8	
November	101.5	3	17.8	8	
December	83	2	17.0	10	

Records for Bethal (2008 - 2009)

The average relative humidity on an annual base are as follows:

08:00 = 80%

14:00 = 52%

20:00 = 73%

Prevailing Winds

Records for Bethal (2008 - 2009)

Winds are mostly north-westerly except for February and March when they are easterly to south-easterly. The highest wind speeds are recorded from the south-east: on average 14km/h.

Other Climatic Factors

Records for Bethal (2008 - 2009)

Thunder occurs mostly from November to January with average of 35.7 days annually.

- a) Hail occurs mostly in December with average of 2.8 days annually.
- b) Fog occurs mostly in the winter months with an average of 19 days annually.
- c) Snow rarely occurs
- d) Cloud coverage is highest in the summer months with annual average as follows:
 - 08:00 = 2.8/8
 - 14:00 = 3.8/8
 - 20:00 = 3.1/8

Evaporation for the area is in range of 75mm to 190mm per month. The highest evaporation occurs in December, and the lowest in June.

Topography

The surface topography of the Matla area is typical of the Mpumalanga Highveld consisting in the main of a gently undulating plateau. The flood plains of the local streams are at an average elevation of ± 1540

meters above mean sea level and drainage generally is a northerly direction.

Air Quality

The existing and potential sources of air pollution in Matla area are the following:

- Matla Power Station stack emissions
- Matla Power Station dry dust (fly ash) handling plant
- Dust blow from the Eskom coal stock yard
- Dust blow from the roads in the area
- Seasonal dust blow caused by ploughing of farmlands, and dust blow off denuded fields
- Dust blow from dried out exposed surfaces of the wet ash dam.

However, Eskom utilises the majority of the top surface of the ash dam as an evaporation pan for polluted water, which means that the exposed surface is constantly wet. The sides of the ash dam have largely been rehabilitated, with the result that dust blow from the ash dam.

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

Annexure B: Table of low performance damages (X17)

Low Performance Damage Description	Value of Low Service Damages	Limit of Low Service Damage
Performance delays not finishing as per agreed upon schedule submitted to the <i>Project manager</i>	0.5% of contract cost per day	Limited to 10% of the Contract value
Submission of data-book as per QCP requirements	0.5% of contract cost per day	Limited to 10% of the Contract value
Rework due to poor workmanship.	1% of contract cost per day	Limited to 10% of the Contract value
Daily Progress Updated Schedule	0.5% of contract cost per day	Limited to 10% of the Contract value
No response of NCR within 3 days	0.5% of contract cost per day	Limited to 10% of the Contract value
If the damages exceed 10% of Contract value the Contract will be terminated as per ECC clause 91.2 (R11)		

C1.2 Contract Data

• Part two - Data provided by the *Contractor*

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

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

Notes to a tendering contractor:

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

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

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

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

	Experience:	CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	
11.2(14)	The following matters will be included in the Risk Register	
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:	
31.1	The programme identified in the Contract Data is	
A	Priced contract with activity schedule	
11.2(20)	The <i>activity schedule</i> is in	
11.2(30)	The tendered total of the Prices is	(in figures) (in words), excluding VAT
	<ul style="list-style-type: none"> Data for Schedules of Cost Components 	<i>Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).</i>
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components

C1.3 Forms of Securities

Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract

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

Option X16: Retention

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

The *Contractor* shall guarantee his SDL&I Obligations by providing the *Employer* with an SDL&I Guarantee in the form provided here.

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

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

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

Eskom Holdings SOC Limited
Megawatt Park
Maxwell Drive
Sandton
Johannesburg

Date:

Dear Sirs

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

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

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

1. In this Guarantee the following words and expressions shall have the following meanings:-
 - 1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
 - 1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]
 - 1.3 "Contract" – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted])
 - 1.4 "Contractor" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
 - 1.5 "Eskom" - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30
 - 1.6 "Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.
 - 1.7 "Guaranteed Sum" - means the sum of R [●] ([●] Rand); [Drafting Note: Insert amount of Retention Money Guarantee.].
 - 1.8 "Project" - means the.....
2. At the instance of the Contractor, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
 - 3.1 be signed on behalf of Eskom by a director of Eskom or his authorised delegate.
 - 3.2 state the amount claimed ("the Demand Amount");

- 3.3 state that the Contractor has failed to carry out his obligation(s) to rectify certain defect(s) for which he is responsible under the Contract (and the nature of such defect(s)) alternatively that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.
4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:
- 4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
- 4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
5. The Bank's obligations in terms of this Guarantee:
- 5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
- 5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed by the fact that a dispute may exist between Eskom and the Contractor.
6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.
7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.
8. This Guarantee:
- 8.1 shall expire on the Expiry Date until which time it is irrevocable;
- 8.2 is, save as provided for in **Error! Reference source not found.** above, personal to Eskom and is neither negotiable nor transferable;
- 8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;
- 8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and
- 8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.
- 8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.
9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____

Date _____ Bank's seal or stamp

For and behalf of the Bank

Bank Signatory: _____

Bank Signatory: _____

Witness: _____

Witness: _____

Pro forma SDL&I Guarantee

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

Eskom Holdings Limited
Megawatt Park
Maxwell Drive
Sandton
Johannesburg

Date:

Dear Sirs

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

Pro-Forma ASGI-SA Guarantee: [Drafting Note: Name of Contractor to be inserted]

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

1. In this Guarantee the following words and expressions shall have the following meanings:-
 - 1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
 - 1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]
 - 1.3 "Contract" – means the written agreement relating to the Project, entered into between the *Employer* and the *Contractor*, on or about the [●] day of [●] 200[●] (Contract Reference No. [●] as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted])
 - 1.4 "*Contractor*" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
 - 1.5 "*Contractor's* SDL&I Obligations" – means the *Contractor's* SDL&I Obligations under and as defined in the Contract.
 - 1.6 "*Employer*" - means Eskom Holdings Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/06.
 - 1.7 "Expiry Date" - means the [●] day of [●] 200[●]; [Drafting Note: anticipated date of issue of SD& Performance Certificate to be inserted.]
 - 1.8 "Guaranteed Sum" - means the sum of R [●] ([●] Rand);
 - 1.9 "Project" – means the
2. At the instance of the *Contractor*, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of the *Employer*, as security for the proper performance by the *Contractor* of the *Contractor's* ASGI-SA Obligations and hereby undertake to pay to the *Employer*, on written demand from the *Employer* received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
 - 3.1 state the amount claimed ("the Demand Amount");
 - 3.2 state that the Demand Amount is payable to the *Employer* in the circumstances contemplated in

the Contract.

4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:
 - 4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
 - 4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
5. The Bank's obligations in terms of this Guarantee:
 - 5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
 - 5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between the *Employer* and the *Contractor*.
6. The *Employer* shall be entitled to arrange its affairs with the *Contractor* in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the *Contractor* or any variation under or to the Contract.
7. Should the *Employer* cede its rights against the *Contractor* to a third party where such cession is permitted under the Contract, then the *Employer* shall be entitled to cede to such third party the rights of the *Employer* under this Guarantee on written notification to the Bank of such cession.
8. This Guarantee:
 - 8.1 shall expire on the Expiry Date until which time it is irrevocable;
 - 8.2 is, save as provided for in **Error! Reference source not found.** above, personal to the *Employer* and is neither negotiable nor transferable;
 - 8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;
 - 8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and
 - 8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the courts of the Republic of South Africa.
 - 8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.
9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____

Date _____

For and behalf of the Bank

Bank Signatory: _____

Bank Signatory: _____

Witness: _____

Witness: _____

Bank's seal or stamp

PART 2: PRICING DATA

ECC3 Option A

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

C2.1 Pricing assumptions: Option A

1. How work is priced and assessed for payment

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

Identified and defined terms 11
 11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

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

- each group of completed activities and
- each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering contractor as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

2. Function of the Activity Schedule

Clause 54.1 in Option A states: "Information in the Activity Schedule is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

3. Link to the programme

Clause 31.4 states that "The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering contractor will develop a high level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

4. Preparing the *activity schedule*

Generally it is the tendering contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

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 his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor*:

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works 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 activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

An activity schedule could have the following format:

Item No.	Programme Reference	Activity description	Price

C2.2 the *activity schedule*

No.	Task description	Unit	Quantity	Total Rate	Amount (Zar)
1	Preliminaries and General				
1.1	Site establishment	Sum	1		
1.2	Health and Safety	Sum	1		
1.3	Travelling	Sum	1		
1.4	Site de-establishment	Sum	1		
2	Removal of Existing Material				
2.1	Removal of existing carpets, fixtures and old furniture stored in the Simulator Building	m ²	170		
3	Civil Upgrade				
3.1	Bricking up of old entrance and installation of new door	Sum	1		
3.2	Supply and installation of double shopfront door	Sum	1		
3.3	Backfill existing cable trenches	m ²	3		
3.4	Prepare and cast elevations for auditorium at an appropriate slope	m ²	170		
3.5	Supply and install replacement suspended ceiling boards for the auditorium	m ²	165		

3.6	Dry wall supply and installation for sound proofing the auditorium. 15,00 m (width) x 11, 00 m (length) x 3,80 m (height)	m ²	200		
3.7	Prepare walls for painting. Supply and paint walls in Pantone 8004C	m ²	190		
3.8	Prepare and tile floor with Susana beige ceramic floor tiles (400, 00 mm x 400, 00 mm)	m ²	170		
4	Electrical Upgrade				
4.1	Supply and install 1200, 00 mm x 600, 00 mm recess lights	Sum	22		
4.2	Supply and install dimmable side lights	Sum	6		
4.3	Supply and install light switches	Sum	2		
4.4	Supply and install plug points	Sum	2		
5	Sound System				
5.1	Supply and install AV controller	Sum	1		
5.2	Supply and install wall mounted speakers and brackets	Sum	6		
5.3	Supply and install stage PA speaker	Sum	1		
5.4	Supply and install 12 channel mixer	Sum	1		
5.5	Supply and install ceiling intercom system	Sum	6		
5.6	Supply and install amplifier	Sum	1		
5.7	Supply and install cordless handheld mics	Sum	2		
5.8	Supply and install cordless lapel mics	Sum	2		
5.9	Supply and install motorized screen (3,0 m)	Sum	1		
5.10	Supply and install projector	Sum	1		
6	Furniture				
6.1	Supply and install fixed auditorium chairs	Sum	100		
6.2	Supply and install moveable chairs	Sum	20		

6.3	Supply and install curved moveable tables	Sum	4		
6.4	Design and construction of stage area	Sum	1		
7 Outdoor Feature					
7.1	Supply and install pebble/ stone fill for entrance area	m ²	10		
7.2	Supply and install ground mounted flood lights	Sum	3		
7.3	Supply and install African pot arrangement	Sum	1		
8 HVAC System					
8.1	Design, supply and installation of 2 x Dx packaged units (48 000 Btu/h each) inclusive of inverter type, Utilising Ozone Friendly gas, ducting (Insulated and cladged), sound attenuators, diffusers (Supply and Return), fire dampers, balancing dampers, electrical motor centre (MCC), network control panel (NCP), interface to fire detection (if available), plinths and wall penetrations	Sum	1		

Tenderer

Designation

Name

PART 3: SCOPE OF WORK

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

C3.1: EMPLOYER'S WORKS INFORMATION

Contents

• Offer	3
• Acceptance	4
• Schedule of Deviations to be completed by the <i>Employer</i> prior to contract award	5
• Part two - Data provided by the <i>Contractor</i>	24
• Clause.....	24
• Statement	24
• Data	24
• Data for Schedules of Cost Components	25
Part 2: Pricing Data	1
Part 3: Scope of Work	1
2.3 Format and Layout of Documents	20

1 Description of the works

1.1 Executive overview

Matla Power Station has a Simulator Training Building located outside the main station entrance. This building is now redundant and will be repurposed as an auditorium. The conversion of this building includes civil, electrical and HVAC upgrades, as well as sound system and furniture installations.

1.2 Employer's objectives and purpose of the works

The objective of the project is to convert the old Simulator Building to an auditorium. This document clearly defines the scope of *Works* with sufficient information for the successful tenderer (*Contractor*) to ensure that all requirements for this project are met.

The *Contractor* to provide Plant and Materials, machinery, tools, labour, transportation, construction fuels, chemicals, construction utilities, administration, other services, and items required to complete the scope of *works*.

1.3 Scope of the Works

	SCOPE OF WORK DESCRIPTION / ACTIVITY	PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION	HOLD POINTS, WITNESS, REPORTS	RESPONSIBLE PARTY
2.0	This scope provides the specifications for the civil, HVAC, lighting and sound system requirements for the upgrade of the Simulator Building.			
2.1	<p>Civil Upgrade</p> <p>The existing Simulator Building is to be converted to an auditorium, with the layout being found below in Figure 1. Alongside, the requirements for this upgrade can be found, inclusive of the ceilings, dry wall, tiling, painting and furniture requirements.</p>	<p>Civil Upgrade Requirements</p> <ol style="list-style-type: none"> 1. Dry wall supply and installation is required for sound proofing the auditorium. 15,00 m (width) x 11, 00 m (length) x 3,80 m (height). 2. The existing double door is to be removed, bricked up and plastered over. A new door is to be supplied and installed further down as per Figure 1, below. 3. Supply and install double shopfront door at existing entrance. 4. Backfill existing cable trenches with concrete. 5. Prepare and cast elevations for auditorium at an appropriate slope. 6. Supply and install replacement suspended ceiling boards for the 15,00 m x 11, 00 m of 	Hold	Engineer

		<p>the auditorium.</p> <p>7. Prepare walls for painting. Supply and paint walls in Pantone 8004C, approximate area of 190 m².</p> <p>8. Prepare and tile floor with Susana beige ceramic floor tiles (400, 00 mm x 400, 00 mm), approximate area to tile 170 m².</p>		
2.2	<p>HVAC Upgrade</p> <p>The HVAC upgrades for the auditorium consists of the installation of an air conditioning system consisting of packaged units, ducting, diffusers and all accessories as per Eskom requirements and SANS for air conditioning systems:</p> <p>The appointed service provide shall take the provided concept into considerations and develop a detailed design to suit. The scope of work is inclusive of the following namely:</p> <p>The engineering, quality control, inspections, plant and material selection, preparation of installation drawings, testing, balancing, commissioning and preparation of operating and maintenance manuals, is to be managed and executed by the Contractor in a systematic manner as</p>	<p>HVAC Upgrade Requirements</p> <p>HVAC</p> <ul style="list-style-type: none"> • 2 x Dx Packaged Unit (48 000 Btu/h each) • Inverter type • Utilising Ozone Friendly gas • Ducting (Insulated and cladded) • Sound Attenuators • Diffusers (Supply and Return) • Fire Dampers 	Hold	Contractor

<p>follows:</p> <ul style="list-style-type: none"> a) Detail Design b) Plant and material selection c) Installation drawings d) Testing, balancing and commissioning Documentation e) As built drawings f) Operating Instruction and Maintenance Manuals; and g) Inspection Record Cards/Checklists <p>Concept</p> <ul style="list-style-type: none"> • The packaged units shall be placed on plinths outside the simulator room. The ducts from the packaged units, supply and return up to the wall on the building shall be insulated and cladded. Fire dampers on supply and return air ducts shall be installed on the walls. Sound attenuators shall be installed external of the building to reduce noise (Noise Criteria NC 	<ul style="list-style-type: none"> • Balancing Dampers • Electrical Motor Centre (MCC) • Network Control Panel (NCP) • Interface to fire detection (if available) • Plinths • Wall penetrations 		
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	<p>35), these shall also be insulated and cladded. The duct inside the building shall be externally insulated to reduce noise and prevent condensations. Flexible connections shall be used between the ducts and the diffusers. Return air grilles shall be installed inside to return the air back to the packaged units. Fresh air entry point into the return air duct with balancing damper and grill shall be installed. A set of filter in a filter box arrangement shall be designed to filter both fresh air and return air (MERV 9) prior to returning the packaged units. Magnehelic gauges to be installed on across the filter to record filter conditions. Filter status to be also recorded on NCP. Ducting to be sized to minimize noise inside the space, the size of ducting shall be dependent on the proposed packaged units.</p> <ul style="list-style-type: none">• An electrical panel (MCC) shall be installed for powering these units. Final position of this panel shall be decided on site in conjunction			
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	<p>with the Engineer.</p> <ul style="list-style-type: none"> • A network control panel (NCP) shall be installed for operating, controlling, monitoring, alarming, scheduling and trending the operation of these units. Final position of this panel shall be decided on site in conjunction with the Engineer. <p>Design Criteria</p> <ul style="list-style-type: none"> • Design Temp (Max/Min) = 26/22 °C • Relative Humidity = Uncontrolled but monitored • Heating = Yes • Minimum Particle Filtration Efficiency (%) = MERV 9. • Pressurization = 2 ACH • Noise Criteria = 35 dBA • Redundancy = No <p>Approvals</p> <ul style="list-style-type: none"> • The Contractor shall submit all designs to the 			
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	<p>Eskom Engineer for approval prior to procurement of equipment. The schematic provided is for tendering purposes.</p> <p>Drawings/Documents</p> <p>The contractor shall submit the following minimum documents and/or drawings for the system</p> <ul style="list-style-type: none">• Mechanical layout drawings (construction and as built)• Design report including heat loads, duct pressure drop calculations, acoustic calculations.• Commissioning procedure and schedule and commissioning data• Control philosophy• Air flow schematic• Electrical drawings including cable schedule and load list• Control and Instrumentation drawings including, but not limited to alarm schedule,			
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	<p>drive and actuator schedule, instrument schedule, NCP cable schedule, virtual signal list.</p> <ul style="list-style-type: none">• Operating and maintenance manuals. <p>Minimum Applicable Standards</p> <ul style="list-style-type: none">• CIBSE Commissioning Code A: Air Distribution Systems• CIBSE Commissioning Code C: Automatic Controls• CIBSE Commissioning Code R: Refrigeration• ISO 9000: Quality Management Systems• OHS ACT: Occupational Health and Safety Act 85 of 1993• SANS 10400: The Application of the National Building Regulations• SANS 10103: The measurement and rating of environmental noise with respect to annoyance			
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	<p>and to speech communication</p> <ul style="list-style-type: none">• SANS 10142-1: The wiring of premises Part 1: Low-voltage installations• SANS 10147: Refrigerating Systems including plants associated with air-conditioning Systems• SANS 10173: The installation, testing, and balancing of air-conditioning duct work• SANS 193: Fire dampers• SANS 1238: Air-conditioning ductwork• SANS 1287-1: Ventilation brattices and ducting Part 1: Flexible ducting• SANS 1287-2: Ventilation brattices and ducting Part 2: Brattices, unsupported• SANS 1424: Filters for use in air-conditioning and general ventilation• SANS 10139: Fire detection and alarm			
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	<p>systems for buildings – System design, installation and servicing</p> <ul style="list-style-type: none"> • 240-70164623 : Design Guideline for HVAC in the Eskom Coal Fired Power Station • 240-102547991: Eskom General Technical Specification for HVAC Systems • 240-49910707: Detail Design Report Template • 240-109607332: Eskom Plant Labelling Abbreviation Standard • 240-86973501: Engineering drawing Standard • 240-56355843: Pressure Measurement Systems Installation • 240-56355888: Temperature Measurement Systems Installation • 240-56356411: Fire Barrier Seals for Electrical Cable Installations • 240-56355466: Alarm Management System 			
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	<p>Guideline</p> <ul style="list-style-type: none"> • 240-56355728: Human Machine Interface Design Requirements Standard • 240-56227443: Requirements for Control and Power Cables for Power Stations Standard • 240-56356396: Earthing and Lightning Protection Standard • 240-56227516: LV Switchgear and Control Gear Assemblies and Associated Equipment for Voltage up to and Including 1000V AC and 1500V Standard 			
2.3	<p>Electrical Upgrade</p> <p>The electrical upgrades for the auditorium will consist of lighting upgrades and the installation of plug points. The specifications of these can be found alongside.</p> <p>NOTE: All electrical work to be handed over to Eskom with a COC</p>	<p>Electrical Upgrade Requirements</p> <p>Lighting:</p> <ul style="list-style-type: none"> • 1200, 00 mm x 600, 00 mm recess lights x 22 • Dimmable side lights x 6 • Light switches x 2 <p>Plug Points</p> <ul style="list-style-type: none"> • Plug points located at front of auditorium x 2 	Hold	Contractor

2.4	<p>Sound System</p> <p>The requirements for the sound system supply and installation can be found alongside.</p>	<p>Sound System Requirements</p> <ul style="list-style-type: none"> • AV Controller • 6 x Wall mounted speakers and brackets • 1 x Stage PA Speaker • 1 x 12 Channel Mixer • 6 x Ceiling Intercom System • 1 x Amplifier • 2 x Cordless Handheld Mics • 2 x Cordless Lapel Mics • Motorised Screen (3m) and Projector Setup and installed 	Hold	Contractor
2.5	<p>Furniture</p> <p>A combination of fixed and moveable chairs will be required for supply and installation in the new auditorium, the requirements for which can be found alongside.</p>	<p>Furniture Requirements</p> <p>Fixed Furniture:</p> <ul style="list-style-type: none"> • 100 x fixed auditorium chairs <p>Moveable Furniture</p> <ul style="list-style-type: none"> • 20 x moveable auditorium chairs 	Hold	Contractor

		<ul style="list-style-type: none"> 4 x curved moveable tables as per Figure 1 below <p>Stage A stage is to be constructed depending on the space availability upon completion of the project. Designs and layouts are to be submitted to the project leader.</p>		
2.6	<p>Outdoor Feature An upgrade of the outdoor entrance feature to the Simulator Building is required for aesthetic purposes.</p>	<p>Outdoor Feature Requirements</p> <ul style="list-style-type: none"> Pebble/ stone fill for ground area Ground flood lights x 3 African pot arrangements x 5 	Hold	Contractor
2.7	<p>Important Notes:</p> <ul style="list-style-type: none"> It is the contractor’s responsibility to verify any measurement and bill of quantities of interest. The contractor shall provide a service report detailing the condition prior to the commencement of works, works executed and the condition after the works have been completed. 		Report	Contractor

2. Drawings

Drawing number	Revision	Title
0.47/ 50887	N/A	Simulator Building Sections and Details

3. Specifications

Title	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
Health and Safety Specifications For Contracting Companies	OMOP 2605	Yes
Eskom Life Saving Rules	32-421	Yes
Construction Regulations	32-136	Yes
Conflict of Interest Policy	32-173	Yes
Plant Safety Regulations		Yes
<u>Technical specifications</u> As per Engineering Scope of Works		

1.4 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
QCP	Quality Control Plan
ITP	Inspection Test Plan
QMS	Quality Management System
ISO	International Standards Organisation

2 Management and start up.

2.1 Management meetings

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

Title and purpose	Approximate time interval	Location	Attendance by:
Risk register, Early warnings and compensation events	Bi- weekly	TBC	Employer, PM, Contractor, Supervisor, and Others as per the

			invite from the Project Manager
Construction progress meeting	Weekly	TBC	<i>Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager</i>
Commercial and Assessment meeting	Monthly	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Quality meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
SHE meetings	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Integration meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Planning meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Document Management	Adhoc	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager

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

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

2.2 Documentation control

All communication must be through official e-mail channels directly to the project manager.

2.1 Documentation Requirements

The Contractor shall compile a complete data book for all work done during manufacturing, construction and commission containing the following as a minimum if applicable:

- Scope of work
- Approved "As built" drawings (CADDED)
- Design calculations
- Approved QCP / ITP
- Inspection reports
- Pipe ovality reports if applicable
- As built drawings (isometric drawings and P&IDs)
- Material summary that gives full traceability between components used, drawings and material certificates
- All material certificates for pipes, fittings and all components used.
- Pressure test certificate and the calibration certificates of the gauges used.
- Pressure test procedures
- The manufacturer's/repairer's certificate as defined in PER.
- All CAR's and corrective actions
- Operating Philosophy including all alarm and trip values
- Parts catalogue
- Maintenance manual
- Storage, packing and transportation instructions

The Contractor is responsible for the compilation and the supply of the documentation during the various project stages and to provide the documentation programme to link with the milestone dates. Documentation and drawings are programmed for delivery to meet the milestone dates.

All documents supplied by the Contractor shall be subject to Eskom's approval. For consistency, it is important that all documents used within the project follow the same layout, style and formatting as described in the Technical Documents and Records Management Work Instruction (240-53114186). Documents such as QCP's, Method Statements and other documents impacting the work shall be approved by the Employer at least 21 days prior to commencement of the Works.

Each revision of a document or drawing shall be accompanied with a list of the comments made by the Employer on the previous revision if applicable and the response/corrective action taken by the Contractor. Changes shall be recorded in a revision table contained in each drawing/document.

Documents and drawings shall indicate the Employer's number as allocated by the Employer. The Contractor may have his own internal document or drawing number on the document or drawing, but where reference is made among documents, the Employer's number shall be used as the reference number.

The Contractor shall compile a complete data book for all work done during manufacturing, construction and commission containing the following as a minimum if applicable:

- Scope of work
- Approved "As built" drawings (CADDED)
- Design calculations
- Approved QCP / ITP

- Inspection reports
- Pipe ovality reports if applicable
- As built drawings (isometric drawings and P&IDs)
- Material summary that gives full traceability between components used, drawings and material certificates
- All material certificates for pipes, fittings and all components used.
- Pressure test certificate and the calibration certificates of the gauges used.
- Pressure test procedures
- The manufacturer's/repairer's certificate as defined in PER.
- All CAR's and corrective actions
- Operating Philosophy including all alarm and trip values
- Parts catalogue
- Maintenance manual
- Storage, packing and transportation instructions

2.2 Document Identification

The documentation requirements cover the various engineering stages, from the design stage through fabrication, installation, testing and commissioning and most importantly for the operating, maintenance and training stages of the project.

The *Contractor* is responsible for the compilation and the supply of the documentation during the various project stages and to provide the documentation programme linked to the milestone dates. Completion dates for documentation and drawings are scheduled to meet the milestone dates.

All documents supplied by the Contractor shall be subject to Eskom's approval. For consistency, it is important that all documents used within the project follow the same layout, style and formatting as described in the Technical Documents and Records Management Work Instruction (240-53114186). Documents such as QCP's, Method Statements and other documents impacting the work shall be approved by the Employer at least 3 working days prior to commencement of the Works.

As a minimum, the following should be in the method statement:

i. Activity

The Contractor illustrates the description of the major activities as of the programme described under Programming.

ii. Quantity

The Method Statement shows the quantity of that particular activity taken from the Bill of Quantities with its unit of measurement; this will directly influence the method to be used.

iii. Method

The Method Statement provides a short but complete description of how the activity will be executed, to engage the Project Manager with risks associated the method used.

iv. Sequence

The Method Statement shows the sequence of the activities; this serves as an indication to the planner on how activities will be linked. The sequence must also indicate if, and how activities can be overlapped.

v. Resources

All necessary equipment and labour required to complete a particular activity must be indicated in the Method Statement, this is used to assess the compensation event, should similar activities become a compensation event.

vi. Production Rate

The estimated daily production rate of the resources linking the method and the quantity must be indicated in the Method Statement, the production rate will be the divisor of the quantity to produce the estimated duration that will be indicated in the programme.

vii. Duration

The duration of the activity will be indicated in the Method Statement and will be quotient of quantity and production rate of the activity. This will illustrate if the estimated duration is realistic as stated in bullet number 3 of Clause 31.3 NEC Engineering and Construction Contract.

- The Contractor shall ensure that document has the following minimum attribute on the cover page:
 - Title of the document
 - Document Unique Identification Number (Eskom number)
 - Contractor Document number, if applicable
 - Document status
 - Revision number
 - Document Type
 - Document security level
 - Document revision table/history
 - Page number on the footer
 - Document Author/Authoriser/
 - Document Originator Contractor
- The following additional attributes are important for technical documents:
 - Package/System name, sub-system if applicable
 - Unit/s number
 - Contractor name
 - Contractor number
 - Plant Identification Codes

2.3 Format and Layout of Documents

For consistency, it is important that all documents used within a specific domain follow the same layout, style and formatting standard.

Layout and Typography

- Every document should comply with the following font specifications:
 - Font Colour: Black
 - Main Headings Font Type: Arial, Bold, Capital Letters
 - Main Heading Font Size: 12pt
 - Sub Headings Font Type: Arial, Bold, Title Case
 - Sub Headings Font Size: 11pt
 - Body Font Type: Arial, Sentence Case i.e., only the first letter of the first word is a capital letter.
 - Body Text Font size: 11pt
 - Line Spacing: 1.5 line spacing
 - Margins: standard
 - Alignment: full justification to be used
 - Paragraphing: one line skip between paragraphs
 - Pagination: centred page numbers (about 0.5 inches from bottom)

- Indentations: standard tab for all paragraphs (about 0.4 to 0.5 inches)

Document Headers

The header should include the project name, document title, document number, revision number and page number.

Naming of files

The Contractor will comply with the Eskom standard for naming documentation files. The standard is as follows:

For documents that have approval date and signature

(YYYYMMDD_DocType_DocumentTitle_UniqueIdentifier_Revision.FileExtension)

For documents that do not necessarily require the 'Approved Date' and 'Revision & Versioning', use the date of update

(YYYYMMDD_DocType_DocumentTitle_UniqueIdentifier_Revision.FileExtension)

All further requirements shall be according to IEC 61355 – 1:2008 (Edition) Classification and designation of documents for plants, systems and equipment – Part 1: Rules and classification tables.

2.3 Document Submission

Contractor engineering program shall allow a minimum of 21 days for mailing, processing, and review of drawings and data by Employer. The Contractor is responsible for the compilation and the supply of all the documentation required during the various project stages and to provide the documentation programmed to link with the milestone dates.

If the Contractor makes further changes to the equipment and materials shown on submittals that have been reviewed by the Employer, the changes shall be clearly marked on the submittal by the Contractor and the submittal process shall be repeated. If changes are made by Contractor after delivery to the Plant, as-built drawings indicating the changes shall be prepared by Contractor and submitted to Employer for review. Any resubmittal of information shall clearly identify the revisions by footnote or by a form of back-circle, with revision block update, as appropriate.

Transmittals

All document exchange shall be done using formal Transmittals. The following is the minimum information required for sending transmittals:

- Title of the document
- Reason for issuing/submission
- Transmittal Number
- Transmittal Name
- Transmittal Description
- Contract Number:
- Package Number
- Transmittal purpose
- Sender Name
- Sender E-Mail
- Sender Organisation
- Recipient Name
- Recipient E-Mail
- Recipient Organisation
- Disclosure Classification
- Date received
- Quantity of documentation referenced on the transmittal
- Number of copies
- Format/medium submitted (e.g. paper, DVD, etc.)
- Sender signature
- Recipient signature, once submitted, to acknowledge receipt

- a) If a transmittal is in response to an Eskom communication via transmittal, the Eskom Transmittal Number shall be referenced in the transmittal response and shall be provided in addition to the meta-data required.
- b) The Contractor shall follow a structured and standard definition for Transmittal Descriptions, i.e. a subject line convention of **YYYYMMDD – <Contract & Package Number> – <Vendor> – <Short Description> – <Sender Initials>**.
- c) **The Contractor shall follow a structured method of communication as defined within Communication Interface Memorandum (CIM) for any correspondence**
- d) The Contractor shall follow a structured and standard definition for email subjects i.e. a subject line convention of **YYYYMMDD – < Package File Number> – > – <Email Subject line>**.
- e) The Contractor shall select the purpose for transmittal in line with the standard Eskom Selection Criteria:
 - Issued for Approval
 - Issued for Award
 - Issued for Basic Design
 - Issued for Commissioning
 - Issued for Concept Design
 - Issued for Consideration
 - Issued for Construction
 - Issued for Detail Design
 - Issued for Document Review
 - Issued for Handover
 - Issued for Information
 - Issued for Installation
 - Issued for Manufacturing
 - Issued for Procurement
 - Issued for Review
 - Issued for Tender
- f) Issuing of documents with different transmittal purposes shall be done separately and shall not combined into one transmittal. This will ensure fast and efficient processing of incoming and outgoing transmittals and information exchange.

Electronic technical data submittals shall be made using the project manager's email address (and Zendto, a Web-based file transfer service. If *Contractor* does not already have Zendto transmittal capability, information is available at <https://zendto.eskom.co.za/>. (The Uniform Resource Locator [URL] to be used for electronic file submittals will be made available upon Contract award.)

In case of email submission, the Contractor should note that if a single file to be transmitted is over 2MB in size, then the document shall be uploaded on Zendto portal.

Notification to Engineer that submittals have been posted to Zendto shall be in accordance with the correspondence requirements of this Contract. *For the Zendto submission, a transmittal record must be submitted to the project email document control address information the Employer of such a submission.*

2.4 Health and safety risk management

The *Contractor* shall comply with

- The Occupational Health and Safety Act, 1993, and all regulations made there under;
- All Eskom Safety and Operating Procedures.

The *Contractor* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who have received sufficient safety training to ensure that they can comply therewith.

The *Contractor* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

The *Contractor* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract.

Do safety audits at the *Contractor's* premises, its work-places and on its employees;

Refuse any employee, sub-contractor or agent of the *Contractor* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualifies in terms of the Act;

Issue the *Contractor* with a work stop order or a compliance order should Eskom become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures referred to in 1 above by the Contractor or any of its employees, sub-contractors or agents.

The *Contractors* safety file is to be submitted for approval to Matla's Safety Officer within three (3) days after order placement.

2.5 Environmental constraints and management

The Contractor shall comply to environmental authorizations obligations, water use licences, environmental management plan/programmes, any other applicable legislative requirements (local, provincial, national and international). The contractor shall also comply with Eskom policies and procedures.

The Contractor develops and implements as a minimum the following procedures/ method statements in line with site environmental regulations:

- Environmental Management Plan
- Site Establishment Procedure
- Site Layout Plan
- Waste Management Procedure
- Spill Management Procedure
- Hazardous Chemical Substances Management and Storage Procedure
- Water Management Procedure
- Stockpile and Erosion Management Procedure
- Clear-and-Grub Procedure
- Environmental Rehabilitation Procedure
- Veld Fire Procedure
- Environmental Training Awareness Procedure
- Emergency Preparedness and Response Plan
- Dust Control Procedure

2.6 Quality assurance requirements

The *Contractor* shall be required to demonstrate by means of a Quality Plan that this organisation is so structured that all the requirements of the specification will be properly monitored and controlled. The Quality Plan and Control procedures are to be carried out in accordance with the Quality Control document NWS 1841/C1 and the Matla Quality Manual for *Contractor*. The Quality

Control document is to be submitted for approval to Matla Engineering within three (3) days after order placement by the *Contractor*.

No work may commence unless the Quality Control document has been approved in writing and a copy submitted to *the Employers Representative*. *The Contractor*, in conjunction with Matla Engineering must sign off all Quality Control documents after completing all work on site. *The Contractor* to submit a copy of the final signed off document to *the Employers Representative* within 1 week after Completion of the works.

The following requirements shall also be met for the entire duration of the contract. The standard 240-105658000, "Supplier Quality Management Specification (QM58)" shall be complied with.

- The supplier shall complete and sign **Form A** (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit objective evidence of a developed QMS that complies with **ISO 9001** (or the latest applicable revision). The following documents (approved/signed copies) shall be submitted:
 - Quality management system manual or a document that defines and describes the QMS and its scope
 - Quality Policy
 - Control of documented information
 - Records required by ISO 9001 standard (List of Records)
 - Internal audit procedure
 - Control of nonconformity outputs
 - Nonconformity and Corrective action procedure

The QMS should drive all the supplier's business management processes to ensure that all of Eskom's requirements are fully met on a consistent basis.

- The supplier shall submit a **draft contract quality plan** that is specific to the scope of work as described in the tender documents. The plan must address the minimum requirements as per ISO 10005.
- Where applicable; the supplier shall submit an **example inspection and test plan (ITP) or quality control plan (QCP)**. The plan must address the minimum requirements as per ISO 10005 (if applicable).
- The supplier shall submit documented information for Control of Externally Provided Processes, Products and Services.
- The supplier shall submit a copy of documented information for roles, responsibilities and authorities.

Note: specific requirements per tender will be selected using the List of Tender returnable document (240-12248652)

- The Supplier shall comply with the quality requirements as stated in 240-105658000 - Supplier Quality Management Specification.
- *Compliance with Category 3 quality requirements and all other relevant requirements are mandatory.*
- Compliance with all Eskom standards and governance is essential for all aspects of the works including mechanical, C&I, civil, metallurgical, non-destructive testing, electrical, structural, administration and all other aspects.

2.7 Programming constraints

The Contractor will provide a detailed programme every second day during the project or as requested by the Employers Representative. The Employer may terminate a contract if a detailed programme is not submitted as requested by the Employers Representative. The final contract programme and breakdown will be agreed upon within three (3) days after order placement by the Employer & the Contractor.

The Contractor will provide a detailed programme every second day during the project or as requested by the Employers Representative. The Employer may terminate a contract if a detailed programme is not submitted as requested by the Employers Representative. The final contract programme and breakdown will be agreed upon within three (3) days after order placement by the Employer & the Contractor.

- More than R350 000,00

- Computerized logic network
- Network bar chart
- Time analysis (print out listing)
- Weekly updated critical activities report
- Weekly updated resource report
- Weekly updated interface dates with other Contractors.

- Activities on critical path

On request from the *Employers Representative* for work on critical path the *Contractor* must submit

- Computerized programme twice a day.
- However, should a logic change been executed by the *Contractor*, A revised network, bar-chart and time analysis must be submitted by the *Contractor*.
- Key dates are considered as part completion dates and failure by the *Contractor* to meet those dated could result in the imposition of penalties by Eskom.
- If any difficulties are foreseen in complying with the requirements of this document, these must be resolved with the *Employers Representative* before the tender is submitted.

2.8 Contractor's management, supervision and key people

Contractor to provide organogram listing management and key personnel including the following:

Construction Manager (Site dedicated)
Construction Supervisor (Site dedicated)
Safety Officer (Site dedicated)

2.9 Invoicing and payment

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

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

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

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

Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate. Clause 50.2 states invoices submitted by the *Contractor* include the details stated in the Scope to show how the amount due has been assessed. The *Contractor* shall address the tax invoice to the email address that will be provided and include on it the following information. The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

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

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

2.10 Insurance provided by the *Employer*

Not applicable to this project.

2.11 Contract change management

Contract change management will follow the normal compensation event process. Any change implemented by the *Contractor* without following the compensation event process will not be assessed for payment by the *Project Manager*. Compensation events shall be managed in line with clauses 60, 61, 62, 63, 64 and 65 of the NEC3 Engineering Construction Contract

2.12 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 *Project 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.

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

Not applicable to this project.

2.14 Training workshops and technology transfer

Not applicable to this project.

3 Engineering and the *Contractor's* design

3.1 *Employer's* design

All building works must comply to SANS 10400, and all civil designs for the auditorium seating and stage must be signed off by a professionally registered civil engineer. The HVAC requirements for design and installation must meet the following criteria:

Design Criteria

- Design Temp (Max/Min) = 26/22 °C
- Relative Humidity = Uncontrolled but monitored
- Heating = Yes
- Minimum Particle Filtration Efficiency (%) = MERV 9.
- Pressurization = 2 ACH
- Noise Criteria = 35 dBA
- Redundancy = No

Approvals

- The Contractor shall submit all designs to the Eskom Engineer for approval prior to procurement of equipment. The schematic provided is for tendering purposes.

3.2 *Parts of the works which the Contractor is to design*

The following standards are to be adhered to:

Minimum Applicable Standards

- CIBSE Commissioning Code A: Air Distribution Systems
- CIBSE Commissioning Code C: Automatic Controls
- CIBSE Commissioning Code R: Refrigeration
- ISO 9000: Quality Management Systems
- OHS ACT: Occupational Health and Safety Act 85 of 1993
- SANS 10400: The Application of the National Building Regulations
- SANS 10103: The measurement and rating of environmental noise with respect to annoyance and to speech communication
- SANS 10142-1: The wiring of premises Part 1: Low-voltage installations
- SANS 10147: Refrigerating Systems including plants associated with air-conditioning Systems
- SANS 10173: The installation, testing, and balancing of air-conditioning duct work
- SANS 193: Fire dampers
- SANS 1238: Air-conditioning ductwork
- SANS 1287-1: Ventilation brattices and ducting Part 1: Flexible ducting

- SANS 1287-2: Ventilation brattices and ducting Part 2: Brattices, unsupported
- SANS 1424: Filters for use in air-conditioning and general ventilation
- SANS 10139: Fire detection and alarm systems for buildings – System design, installation and servicing
- 240-70164623 : Design Guideline for HVAC in the Eskom Coal Fired Power Station
- 240-102547991: Eskom General Technical Specification for HVAC Systems
- 240-49910707 : Detail Design Report Template
- 240-109607332: Eskom Plant Labelling Abbreviation Standard
- 240-86973501: Engineering drawing Standard
- 240-56355843 : Pressure Measurement Systems Installation
- 240-56355888 : Temperature Measurement Systems Installation
- 240-56356411 : Fire Barrier Seals for Electrical Cable Installations
- 240-56355466 : Alarm Management System Guideline
- 240-56355728 : Human Machine Interface Design Requirements Standard
- 240-56227443: Requirements for Control and Power Cables for Power Stations Standard
- 240-56356396 : Earthing and Lightning Protection Standard
- 240-56227516 : LV Switchgear and Control Gear Assemblies and Associated Equipment for Voltage up to and Including 1000V AC and 1500V Standard

3.3 Procedure for submission and acceptance of *Contractor's* design

The Contractor shall submit all designs to the Eskom Engineer for approval prior to procurement of equipment. The schematic provided is for tendering purposes.

3.4 Other requirements of the *Contractor's* design

Configuration management for all equipment installed is required. Operating and maintenance manuals for the installed and commissioned equipment is required.

3.5 Use of *Contractor's* design

The contractor's design is suitable for procurement and construction purposes once accepted and signed off by the relevant Eskom engineers.

3.6 Design of Equipment

The Contractor shall submit all designs to the Eskom Engineer for approval prior to procurement of equipment

3.7 Equipment required to be included in the *works*

The *Contractor* provides plant and materials, machinery, tools, labour, transportation, construction fuels, chemicals, construction utilities, and administration and other services and items required to complete the scope of work.

3.8 As-built drawings, operating manuals and maintenance schedules

The contractor is required to provide drawings of the final as built auditorium civil works, electrical works and HVAC installations.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

All employees from the Contractor performing the works are required to have the necessary trade certifications for civil, electrical and HVAC works, respectively.

4.1.2 BBBEE and preferencing scheme

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

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

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

[Insert the agreed ASGI-SA Compliance Schedule here]

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

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

4.2 Subcontracting

4.2.1 Preferred subcontractors

ECC 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 Plant and Materials need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Not applicable for this project.

4.2.3 Limitations on subcontracting

Not applicable for this project.

4.2.4 Attendance on subcontractors

Subcontractors shall comply with the *Employer's* regulations

4.3 Plant and Materials

4.3.1 Quality

The *Contractor* must make allowance for the Employer's team to visit their workshops, manufacturing plants, testing facilities etc. for the purpose of inspection and auditing.

Plants brought to site shall be inspected by the *Employer's* personnel.

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

4.3.3 *Contractor's* procurement of Plant and Materials

The Eskom engineer must approve all plant and materials prior to the Contractor procuring the items. The plant and material warranties must be held with the manufacturer, and not the Contractor.

4.3.4 Spares and consumables

Provision must be made for the supply of a minimum category of spares and consumables which the *Employer* may need at or just after take over and that it is best the *Contractor* provide these initially as part of his Providing the Works.

4.4 Tests and inspections before delivery

Tech spec and Quality (QM58): Offsite inspections

The Contractor must make a provision for access for the Project Manager and Others before, during and after the test and inspection dates

4.5 Marking Plant and Materials outside the Working Areas

Not applicable to project.

4.6 *Contractor's* Equipment (including temporary works).

Not applicable to project.

4.7 Cataloguing requirements by the *Contractor*

Not applicable to project.

5 Construction

5.1 Temporary works, Site services & construction constraints

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

The Contractor's Personnel and any visitors on the Project Site must be in possession of a valid identification card supplied by the Employer. Applications for identification cards shall be made in the form prescribed by the Project Manager. The identification cards shall be used to gain access to the Project Site and only persons with legitimate business on the Project Site and in possession of such identification cards will be allowed access. Applications for identification cards shall be made in good time prior to access being required. Lost, stolen or damaged cards shall be reported to the Project Manager immediately. A fee shall be charged for replacement cards. Identification card holders will be required to produce their identification cards for an ID photo at the security check points. Where a card holder's right of access to the Project Site is withdrawn, their identification card will be electronically cancelled. It is the responsibility of the Contractor to ensure the card is returned to the Project Manager.

Removal of Goods from the Project Site

All persons removing *inter alia* materials, equipment, toolboxes, temporary facilities etc. from the Project Site must be in possession of a valid gate release permit. Applications for general or specific gate release permits shall be made in the form prescribed by the Project Manager.

Access Control for Vehicles

Only a limited number of Contractor and Subcontractor non-construction vehicles will be allowed onto the Project Site. The Contractor is responsible for allocating within their allocated site parking for employees and visitors. Vehicle entry discs will be issued at the discretion of the Project Manager on receipt of an application signed by the Contractor. Applications for vehicle entry discs shall be made in a form prescribed by the Project Manager.

Visitors

Before entering the Project Site, visitors (meaning any person other than the Contractor's Personnel) must be in possession of a valid identification card as mentioned above. Applications shall be made in a form prescribed by the Project Manager prior to access being required and visitors must be in possession of positive identification. The Contractor's visitors shall be subject to all Project Site rules and regulations including those related to Health & Safety and discipline. As a minimum requirement, visitors must wear safety shoes, hard hats, reflector vests, safety goggles, dust masks and any other personal protective equipment as required by the Project Manager and must be accompanied by their hosts at all times whilst on the Project Site.

Fire-arms

Fire-arms will not be permitted on the Project Site (nor at other places, if any, as may be specified under the Contract as forming part of the Site). This restriction does not, however, apply to the South African Police Services in the pursuance of official duties and Security personnel approved by the *Project Manager*.

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

No access will be required directly onto Matla Power Station as the works will occur outside the bounds of the National Key Point. Any barricades required for construction must be supplied by the contractor.

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

It is very important that the Contractor keeps records of his people on Site, including those of his Subcontractors which the Project Manager or Supervisor have access to at any time. These records may be needed when assessing compensation events. The Contractor shall inform the Project Manager in advance for any work that is planned to be executed outside the official working hours.

The Employer's working hours are from:

- 07:00 to 16:30 Monday to Thursday
- 07:00 to 12:00 on Friday

5.1.4 Health and safety facilities on Site

In the event of a medical incident or emergency, the Contractor may make use of Matla Power Station's Medical Centre. Should there be an emergency, the Contractor is to call 017 612 6666 to notify emergency response personnel.

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

Not applicable to project.

5.1.6 Title to materials from demolition and excavation

It is the responsibility of the contractor to remove all materials resulting from demolition materials, which are to be disposed of at an Eskom approved licensed waste disposal site.

5.1.7 Cooperating with and obtaining acceptance of Others

The Contractor will have to cooperate with others.

5.1.8 Publicity and progress photographs

The taking of photographs at Matla Power Station including the Project works is restricted and subject to the approval by the Project Manager. For the purpose of the Progress Reporting Requirements, the Project Manager may prohibit the taking of such photographs and/or require that all such photographs be taken by the Employer. All notice boards, advertising rights and media relations should be published with the approval of the Employer.

5.1.9 Contractor's Equipment

- The Contractor provides all Equipment that is required to complete the works. The Contractor shall ensure that all his construction equipment remains within the fenced off in the allocated construction area.

- The Contractor shall ensure that any equipment moving outside his allocated construction site does not obstruct the normal operation of the power station. Any additional access routes required must be coordinated with the Project Manager.
- The Contractor must keep daily records of his equipment used on Site and the Working areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the Project Manager at all reasonable times.
- All Equipment used by the Contractor in providing the works shall comply with the General Machinery Regulation 4 of the Occupational Health and Safety Act (Act 85 of 1993)

5.1.10 Equipment provided by the *Employer*

No Equipment will be supplied by the Employer; however, the Employer does reserve the right to negotiate with the Contractor on the use of different equipment for whatever purpose that may become apparent at the time. The Contractor supplies all equipment including cranes, scaffolding and any other equipment for the construction of the works and site establishment

5.1.11 Site services and facilities

Water

Water (Raw water and Fire water) will be made available on request free of charge from tapping points on site. Connection point to be provided by the Employer. The Contractor is responsible for connection from the tapping points to the contractors yard. The Contractor shall have indicated his request in the Tender. Neither the Employer nor the Project Manager shall, however, be bound to approve any revised requirements.

Electricity

All power required for construction and lighting should be provided for by the contractor. The Employer will not supply electrical power for construction purposes.

5.1.12 Facilities provided by the *Contractor*

Contractor's offices and storage

The contractor shall provide contractor's yard and offices to be used by the contractor during the duration of the contract. . The yard will be kept clean and tidy at all times, this will include all workshops and storage areas under the control of the Contractor. Maintenance of the yard is the Contractors responsibility and is for the Project Managers acceptance. Outfall drainage of all surface run-off drains is constructed by the Contractor to the acceptance of the Project Manager to minimise erosion and to effect control of contaminated water

Rehabilitation

The Contractor is responsible for the rehabilitation of the areas of responsibility including lay down area. Amongst others, this shall include the removal of infrastructure such as offices, workshop areas, storage areas, etc... The area should be top soiled and vegetated as per the approved de-establishment plan, environmental authorizations and other relevant regulations.

Ablution Facilities and Refuse

Where required, the Contractor shall provide and maintain adequate and suitable sanitized ablution facilities appropriate to the workforce size and work duration that conforms to the requirements of all applicable legislation. The ratio is 1 ablution to 15 employees for each gender. The separate ablution facilities shall be provided for both genders. These portable ablution facilities will be kept tidy and hygienic during the duration of the Project. Where the Contractor

makes use of existing facilities provided by the project, the Contractor shall ensure that their employees support the aim of keeping these facilities clean and hygienic. The Contractor is to supply own sanitary facilities. A refuse and sewage control system will be established by the Contractor. The Contractor submits all safe disposal certificates and waste manifests to the Project Manager.

Accommodation

The Contractor must provide accommodation, and transportation to and from site for its employees. Transportation must also be provided for local employees. Transportation must be sourced local to Kusile Power Station.

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

The project will be taking place adjacent to an existing Eskom building. Inspections are to be conducted on the adjacent building both prior and after completion of the works to ensure that no buildings defects arose as a result of the works.

5.1.14 Survey control and setting out of the works

Not applicable to project.

5.1.15 Excavations and associated water control

Prior to commencing work on any trench or excavation, the Contractor shall first submit a completed Excavation Permit to the Project Manager. The permit shall be submitted far enough in advance to allow the Project Manager to review the Contractor's submittal. After reviewing the information, the Project Manager shall sign the permit indicating that it has been approved and return a copy of it to the Contractor. The Contractor may commence work after receiving the signed permit. For all trenches or excavations over 7 meters deep, the *contractor* must have the sloping, shoring, or shielding method reviewed by a Licensed Professional Engineer of discipline. The design must be submitted to the Project Manager as an attachment to the Excavation Permit.

The Contractor shall ensure that a full sketch is provided as part of the permit detailing the excavation and the location of underground services. It is unlikely that Project Manager issued construction drawing(s) even annotated will constitute a detailed sketch for the purpose of recording underground services.

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

The Contractor shall conduct a cable scan using a device that can detect cables and other services. The Contractor shall ensure that the operator of the scanner is adequately trained and competent to use the device to its full capabilities with and without the use of a signal generator.

A contractor shall ensure that all excavation work is done in accordance with the requirements of Construction Regulation 13 of the OHS Act.

- Prior to commencing work on any excavation or trench, utility owners shall be contacted and advised of the proposed work and to determine the location of all underground installations, i.e., sewer, telephone, water, fuel, electrical, etc.
- Overhead hazards shall be assessed and dealt with prior to commencement of work.
- All excavations done by the Contractor are to be clearly demarcated and barricaded to prevent accidental access.
- Barricading must be placed as close (500mm from the edge) as possible to the excavation.

- Where it is impracticable to provide fixed guard railing, effective removable barriers shall be provided at all unguarded openings in guard railing or floors and shall be maintained in position at all times until the hazard no longer exists.
- Warning signs and flashing warning lights at night shall be displayed in suitable positions to warn any persons approaching the area of the location and extent of any excavation.
- No material shall be placed within 3m of the excavation edges.
- Project Manager to review the said register on a pre-determined frequency not exceeding seven (7) days.
- There shall be a supervisor present at all times while work is being performed in an excavation
- No work shall commence in an excavation unless the excavation has been declared safe in writing by the appointed competent person.

5.1.17 Control of noise, dust, water and waste

Noise

The Contractor shall conduct Health Risk Assessment to determine noise levels. If the noise level is medium or high, the Contractor shall implement control measures.

Dust and Air quality control

The dust shall be managed in such a manner that the Contractor complies with Environmental requirements and unnecessary complaints are prevented. The Contractor shall provide all the necessary equipment and tools to do dust suppression in their Contractor's laydown areas, surrounding areas and roads as well as in their working areas. The Contractor is also responsible for dust suppression on common areas, Eskom areas which are not used exclusively, or primarily by the Contractors. The Contractor must also dust suppress on other areas that are affecting his works. Dust suppression measures shall be in place to reduce the dust caused by the movement of construction vehicles and other sources.

Water pollution control

The Contractor shall provide the method statement for water pollution control for the approval of the Project Manager. The Contractor shall implement appropriate storm water management control measures prior to construction to manage any erosions such as installing of sediment barriers and/or low berms along the downslope edge of cleared areas to trap sediments on site. Design of sediment barriers should be such that expected flow velocities will not damage the barriers or impair their function. Regular cleaning and maintenance of the barriers should be undertaken.

The Contractor shall ensure that there is no mix of clean and dirty water. The Contractor must inform the PM prior to the abstraction of water from any onsite water bodies.

Waste

For the purpose hereof, "waste" any matter, whether liquid or solid or any combination thereof, which is a by-product, emission, residue or remainder of any process or activity carried out in connection with the works and which is not reused on the Site in the ordinary course of carrying out the works within seven days of production.

The Contractor maintains a high standard of cleanliness during the conduct of his activities at Kusile Power Station. This includes areas allocated for storage of materials, site offices etc. to the satisfaction of the Project Manager. The Contractor keeps these areas clean and free from accumulation of waste materials and refuse regardless of the source. The Contractor is responsible for the prompt removal of all waste to a designated disposal area. The disposal area will be on or in the vicinity of the Power Station and be indicated by the Project Manager.

The Contractor provides an adequate number of marked bins and containers at offices, in yards, at workshops and on the Site for the temporary storage of waste. These bins and containers are subject to approval by the Project Manager. The Contractor is required to segregate certain items of waste by type as designated by the Project Manager. Bins and containers are emptied and waste removed to the designated area at least once a week.

All the temporary storage areas for bins and containers are kept tidy and must not constitute a nuisance to others. The Contractor takes all required steps to avoid spillage of waste alongside the bins and containers during removal and disposal thereof. All waste that cannot be contained in either a bin or container is placed on a temporary waste site which the Project Manager identifies. No burning of waste and littering is allowed at the Power Station.

Hazardous waste is dealt with in accordance with the SHE Specification requirements of the works and the Contractor is solely responsible for the proper disposal thereof. Hazardous waste will be disposed of at an authorised landfill site. Waste register will be kept for record keeping and handed over at the end of the Project. The Contractor notifies the Project Manager of all chemical substances coming to site and keeps an inventory and MSDS of the chemicals.

5.1.18 Sequences of construction or installation

The area concerned for this project will not be in use during construction and installation. However, a project implementation plan is to be submitted to the Eskom engineer prior to the commencement of the works to ensure that activities in the adjacent existing building will not be affected by the execution of the works.

5.1.19 Giving notice of work to be covered up

The *Contractor* provides a notice of work to be covered up to the *Supervisor* as per the approved inspection test plans.

5.1.20 Hook ups to existing works

The adjacent plant and equipment may not be modified without written permission from the *Project Manager*. The *Contractor* complies with Eskom Life Saving Rules and will report any non-conformance.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

Completion will not be achieved until the *Contractor* has successfully completed and handed over all *Works* associated with the contract including the following amongst others;

- Contractor Application for Eskom's Inspection of the Works /Part of the Works,
- Data Packs (e.g. Material Certificates, Qualifications, NDT and Welding Documentation, Cutting Instructions, Factory Design Review Reports, etc.)
- Partial/final Inspection certificate,
- Defects Notification Certificate/Clearance,
- Red-lined drawings for engineering approval,
- Testing results,
- Safety and Housekeeping Certificate,
- Safety Clearance Certificate,
- Completion Certificate,
- Defects Certificate and
- Take over Certificate.

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works. The *Project Manager* cannot certify Completion until all the work has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

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

	Item of work	To be completed by
	As built drawings of HVAC installations, electrical installations and civil changes	Within 30 days after Completion
	Performance testing of the <i>works</i> in use as specified in paragraph of this Works Information.	See performance testing requirements.

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

Eskom will not make use of the works until the installations have been commissioned and handed over.

5.2.3 Materials facilities and samples for tests and inspections

Not applicable to project.

5.2.4 Commissioning

Commissioning is required for the following:

- CIBSE Commissioning Code A: Air Distribution Systems
- CIBSE Commissioning Code C: Automatic Controls
- CIBSE Commissioning Code R: Refrigeration

Additionally, all sound and visual equipment, and electrical installations are to be commissioned and COC provided prior to Eskom accepting the handover of the works.

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

Not applicable to project.

5.2.6 Take over procedures

Not applicable to project.

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

Should defects be noted with the works, Eskom will make the necessary provision for the contractor to access the area without interrupting the activities in the area.

5.2.8 Performance tests after Completion

Not applicable to project.

5.2.9 Training and technology transfer

Not applicable to project.

5.2.10 Operational maintenance after Completion

Not applicable to project.

6 Plant and Materials standards and workmanship

6.1 Investigation, survey and Site clearance

Not applicable to project.

6.2 Building works

- a) Specifications Provided by the Employer:
 - CIBSE Commissioning Code A: Air Distribution Systems
 - CIBSE Commissioning Code C: Automatic Controls
 - CIBSE Commissioning Code R: Refrigeration
 - ISO 9000: Quality Management Systems
 - OHS ACT: Occupational Health and Safety Act 85 of 1993
 - SANS 10400: The Application of the National Building Regulations
 - SANS 10103: The measurement and rating of environmental noise with respect to annoyance and to speech communication
 - SANS 10142-1: The wiring of premises Part 1: Low-voltage installations
 - SANS 10147: Refrigerating Systems including plants associated with air-conditioning Systems
 - SANS 10173: The installation, testing, and balancing of air-conditioning duct work
 - SANS 193: Fire dampers
 - SANS 1238: Air-conditioning ductwork
 - SANS 1287-1: Ventilation brattices and ducting Part 1: Flexible ducting
 - SANS 1287-2: Ventilation brattices and ducting Part 2: Brattices, unsupported
 - SANS 1424: Filters for use in air-conditioning and general ventilation
 - SANS 10139: Fire detection and alarm systems for buildings – System design, installation and servicing
 - 240-70164623 : Design Guideline for HVAC in the Eskom Coal Fired Power Station
 - 240-102547991: Eskom General Technical Specification for HVAC Systems
 - 240-49910707 : Detail Design Report Template
 - 240-109607332: Eskom Plant Labelling Abbreviation Standard
 - 240-86973501: Engineering drawing Standard
 - 240-56355843 : Pressure Measurement Systems Installation
 - 240-56355888 : Temperature Measurement Systems Installation
 - 240-56356411 : Fire Barrier Seals for Electrical Cable Installations
 - 240-56355466 : Alarm Management System Guideline
 - 240-56355728 : Human Machine Interface Design Requirements Standard
 - 240-56227443: Requirements for Control and Power Cables for Power Stations Standard

240-56356396 : Earthing and Lightning Protection Standard
240-56227516 : LV Switchgear and Control Gear Assemblies and Associated
Equipment for Voltage up to and Including 1000V AC and 1500V Standard

- b) List of standardised specifications applicable to the *works*

As above

- c) Variations to the standardized specifications

Any variations brought forward by the contractor are to be verified by the Project Manager and Engineer.

6.3 Civil engineering and structural works

- a) Specifications Provided by the Employer:

SANS 10400 is to be followed for all building regulations and supervision of construction.
SANS 1200 AA is to be followed as a guideline on general construction of small works.

- b) List of standardised specifications applicable to the *works*

As above

- c) Variations to the standardized specifications

Any variations brought forward by the contractor are to be verified by the Project Manager and Engineer.

6.4 Electrical & mechanical engineering works

See section 6.2 above.

6.5 Process control and IT works

Not applicable to project.

6.6 Other [as required]

Not applicable to project.

7 List of drawings

7.1 Drawings issued by the *Employer*

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

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

Drawing number	Revision	Title
0.47_50887_SHT 1	1	Simulator Building: Building Details
0.47_50887_SHT 2	1	Simulator Building: Sections and Details

C3.2 CONTRACTOR'S WORKS INFORMATION

This section of the Works Information will always be contract specific depending on the nature of the *works*.

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

Typical sub headings could be

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

This section could also be compiled as a separate file.

PART 4: SITE INFORMATION

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

PART 4: SITE INFORMATION

1. General description

The Simulator Building is located on the southern periphery of Matla Power Station. The building currently comprises of two adjoining structures separated by a lobby. The works are to be conducted on the old simulator seen in drawings 0.47/ 50887 sheets 1 and 2.

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

The Simulator building is adjoined to the lecture and admin building as per drawings 0.47/ 50887 sheets 1 and 2. The battery limit is the lobby of the existing building.

3. Subsoil information

Not applicable to project.

4. Hidden services

Not applicable to project.

5. Other reports and publicly available information

Not applicable to project.