



# NEC3 Engineering & Construction Contract

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

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

**for MACHINE HALL CLADDING REPLACEMENT  
AT GARIEP POWER STATION**

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## **Contents:**

**Part C1 Agreements & Contract Data**

**Part C2 Pricing Data**

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**Part C4 Site Information**

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

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## Part C1: Agreements & Contract Data

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### Contents:

- C1.1 Form of Offer and Acceptance**
  - C1.2a Contract Data provided by the *Employer***
  - C1.2b Contract Data provided by the *Contractor***
  - C1.3 Proforma Guarantees**
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## 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:

#### MACHINE HALL CLADDING REPLACEMENT AT GARIEP POWER STATION

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.

The offered total of the Prices exclusive of VAT is	R [•]
Value Added Tax @ 15% is	R [•]
The offered total of the amount due inclusive of VAT is <sup>1</sup>	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

<sup>1</sup> 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.

<b>Signature(s)</b>	<hr/>	
<b>Name(s)</b>	<hr/> Avi Singh	
<b>Capacity</b>	<hr/> General Manager: Peaking Generation	
<b>for the Employer</b>	<hr/> Eskom Holdings SOC Ltd Peaking Generation 15 Pasita Street Rosenpark Bellville	
<b>Name &amp; signature of witness</b>	<hr/> Marna Bester Procurement Manager	<b>Date</b>

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

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

Note:

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

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

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

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

	<b>For the tenderer:</b>	<b>For the Employer</b>
<b>Signature</b>	_____	_____
<b>Name</b>	_____	Avi Sigh
<b>Capacity</b>	_____	General Manager: Peaking Generation
<b>On behalf of</b>	(Insert name and address of organisation)	Eskom Holdings SOC Ltd Peaking Generation 15 Pasita Street Rosenpark Bellville
<b>Name &amp; signature of witness</b>	_____	Marna Bester Procurement Manager
<b>Date</b>	_____	_____

## C1.2 ECC3 Contract Data

### Part one - Data provided by the *Employer*

Clause	Statement	Data
1	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		<b>A:</b>
	dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	and secondary Options	
		<b>X1: Price adjustment for inflation</b>
		<b>X2: Changes in the law</b>
		<b>X7: Delay damages</b>
		<b>X13: Performance Bond</b>
		<b>X16: Retention</b>
		<b>X18: Limitation of liability</b>
		<b>Z: Additional conditions of contract</b>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	<b>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</b>
	Address	<b>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</b>
10.1	The <i>Project Manager</i> is: (Name)	<b>Yaron Truter</b>
	Address	<b>Eskom Peaking; Bella Rosa Office Park; Durban Road Bellville, South Africa</b>
	Tel	<b>+27 21 941 5962</b>
	e-mail	<b>truteryb@eskom.co.za</b>
10.1	The <i>Supervisor</i> is: (Name)	<b>Rashied Abrahams</b>
	Address	<b>Eskom Brackenfell, Block M , Eskom Road, Cape Town , South Africa</b>

	Tel No.	+27 21 9415780																	
	e-mail	<a href="mailto:AbrahaR@eskom.co.za">AbrahaR@eskom.co.za</a>																	
11.2(13)	The <i>works</i> are	The removal of existing exterior cladding, design, manufacture, delivery and installation of new cladding system at Gariep Power Station																	
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"><li>• Covid 19 Pandemic</li></ul>																	
11.2(15)	The <i>boundaries of the site</i> are	Machine Hall building at Gariep Power Station																	
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	<ul style="list-style-type: none"><li>• One week prior to site implementation</li><li>• Three days during site implementation</li></ul>																	
2	<b>The Contractor's main responsibilities</b>	Data required by this section of the core clauses is provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.																	
3	<b>Time</b>																		
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	10 October 2023																	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<table><tr><th></th><th><i>Condition to be met</i></th><th><i>key date</i></th></tr><tr><td>1</td><td>Design submission</td><td>12 Dec 2022</td></tr><tr><td>2</td><td>Delivery to site</td><td>25 April</td></tr><tr><td>3</td><td>Site execution start</td><td>16 May 2023</td></tr><tr><td>4</td><td>Site execution completed</td><td>08 Aug 2023</td></tr></table>				<i>Condition to be met</i>	<i>key date</i>	1	Design submission	12 Dec 2022	2	Delivery to site	25 April	3	Site execution start	16 May 2023	4	Site execution completed	08 Aug 2023
	<i>Condition to be met</i>	<i>key date</i>																	
1	Design submission	12 Dec 2022																	
2	Delivery to site	25 April																	
3	Site execution start	16 May 2023																	
4	Site execution completed	08 Aug 2023																	
30.1	The <i>access dates</i> are:	<table><tr><th></th><th>Part of the Site</th><th>Date</th></tr><tr><td>1</td><td>Machine Hall building at Gariep Power Station</td><td>16 May 2023</td></tr></table>				Part of the Site	Date	1	Machine Hall building at Gariep Power Station	16 May 2023									
	Part of the Site	Date																	
1	Machine Hall building at Gariep Power Station	16 May 2023																	
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	Two (2) weeks of the Contract Date.																	
31.2	The <i>starting date</i> is	8 Nov 2022																	
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	One week.																	
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.																		

<b>4</b>	<b>Testing and Defects</b>	
42.2	The <i>defects date</i> is	<b>52 weeks after Completion of the whole of the works.</b>
43.2	The <i>defect correction period</i> is	<b>one week</b>
<b>5</b>	<b>Payment</b>	
50.1	The <i>assessment interval</i> is	<b>the 25<sup>th</sup> day of each successive month.</b>
51.1	The <i>currency of this contract</i> is the	<b>South African Rand.</b>
51.2	The period within which payments are made is	<b>30 days</b>
51.4	The <i>interest rate</i> is	<p>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</p> <p>(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 <i>mutatis mutandis</i> 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.</p>
<b>6</b>	<b>Compensation events</b>	
60.1(13)	<p>The place where weather is to be recorded is:</p> <p>The <i>weather measurements</i> to be recorded for each calendar month are,</p>	<p><b>Weather Station Gariep dam</b></p> <p><b>the cumulative rainfall (mm)</b></p> <p><b>the number of days with rainfall more than 10 mm</b></p> <p><b>the number of days with minimum air temperature less than 0 degrees Celsius</b></p> <p><b>the number of days with snow lying at 09:00 hours South African Time</b></p>

and these measurements:

The *weather measurements* are supplied by

**South African Weather Bureau**

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

**Weather Station Gariep dam**

and which are available from:

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

<b>7</b>	<b>Title</b>	<b>Refer to Core Clause 7 of the NEC ECC (April 2013)</b>
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## **8 Risks and insurance**

84.1 The *Contractor* provides the insurances stated in the Insurance Table.

The insurances provide cover for events which are at the *Contractor's* risk from the *starting date* until the Defects Certificate or a termination certificate has been issued.

**INSURANCE TABLE**

<b>Insurance against</b>	<b>Minimum amount of cover or minimum limit of indemnity</b>
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 at 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	<b><u>Loss of or damage to property</u></b> <b><u>Employer's property</u></b> The replacement cost where not covered by the <i>Employer's</i> insurance.  The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance.  <b><u>Other property</u></b> The replacement cost.  <b><u>Bodily injury to or death of a person</u></b> The amount required by applicable law.
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law.

**87** The *Employer* is to provide insurances as stated in the Insurance Table

INSURANCE TABLE		
	Insurance against	Minimum amount of cover or minimum limit of indemnity
	Assets All Risk	As per the insurance policy document.
	Project insurance	As per the insurance policy document.
	Environmental Liability	As per the insurance policy document.
	General and Public Liability	As per the insurance policy document.
	Transportation (Marine)	As per the insurance policy document.
	Motor Fleet and Mobile Plant	As per the insurance policy document.
	Terrorism	As per the insurance policy document.
	Cyber Liability	As per the insurance policy document.
<b>9</b>	<b>Termination</b>	<b>Refer to Core Clause 9 of the NEC ECC (April 2013)</b>
<b>10</b>	<b>Data for main Option clause</b>	
<b>A</b>	<b>Priced contract with Activity Schedule</b>	
60.6	The <i>method of measurement</i> is	<b>as stated in Part C2.1, Pricing Assumptions.</b>
<b>11</b>	<b>Data for Option W1</b>	
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 <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ) 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	Cape Town, 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 state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.
<b>12</b>	<b>Data for secondary Option clauses</b>	

X1	Price adjustment for inflation			
X1.1(a)	The base date for indices is	[•].		
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	proportion	linked to index for	Index prepared by
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		[•]	non-adjustable	
		Total	1.00	
X2	Changes in the law	Refer to Secondary Option Clause X2 of the NEC ECC (2013)		
X7	Delay damages			
X7.1	Delay damages for Completion of the whole of the works are	R10 000 per day up to a limit of 10% of the total of the prices		
X13	Performance bond			
X13.1	The amount of the performance bond is	10% of the total of the prices		
X16	Retention			
X16.1	The retention free amount is	R0,00		
	The retention percentage is	10% for the total of the prices 5% will be released on completion of the works and remaining 5% on the issue of defect certificate		
X18	Limitation of liability			
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to:	R0.0 (zero Rand)		
X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's property is limited to:	the amount of the deductibles relevant to the event.		
X18.3	The Contractor's liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of <ul style="list-style-type: none"><li>the total of the Prices at the Contract Date and</li><li>the amounts excluded and unrecoverable from the Employer's assets policy for</li></ul>		

		correcting the Defect 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:	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <ul style="list-style-type: none"> <li>• Defects due to his design which arise before the Defects Certificate is issued,</li> <li>• Defects due to manufacture and fabrication outside the Site,</li> <li>• loss of or damage to property (other than the <i>works</i>, Plant and Materials),</li> <li>• death of or injury to a person and</li> <li>• infringement of an intellectual property right.</li> </ul>
X18.5	The <i>end of liability date</i> is	<p>(i) 5 years after the <i>defects date</i> for latent Defects and</p> <p>(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.</p> <p>A latent Defect is a Defect which would not have been discovered on reasonable inspection by the <i>Employer</i> or the <i>Supervisor</i> before the <i>defects date</i>, without requiring any inspection not ordinarily carried out by the <i>Employer</i> or the <i>Supervisor</i> during that period. If the <i>Employer</i> or the <i>Supervisor</i> do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the <i>Employer</i> or the <i>Supervisor</i> to have discovered the Defect.</p>
Z	The <i>Additional conditions of contract</i> are	Z1 to Z12 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:

<b>Affected Party</b>	means, as the context requires, any party, irrespective of whether it is the <i>Contractor</i> 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,
<b>Coercive Action</b>	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
<b>Collusive Action</b>	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
<b>Committing Party</b>	means, as the context requires, the <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or SubContractors or the SubContractor's employees
<b>Corrupt Action</b>	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
<b>Fraudulent Action</b>	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
<b>Obstructive Action</b>	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
<b>Prohibited Action</b>	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action

- Z 12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof
- Z 12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Works 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 Works for this reason.
- Z 12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Works for this reason, the procedures and amounts due on termination are respectively P1, P2 and P3, and A1 and A3.
- Z 12.4 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.

## Z15 Asbestos

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

<b>AAIA</b>	means approved asbestos inspection authority.
<b>ACM</b>	means asbestos containing materials.
<b>AL</b>	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.
<b>Ambient Air</b>	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.
<b>Compliance Monitoring</b>	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.
<b>OEL</b>	means occupational exposure limit.
<b>Parallel Measurements</b>	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
<b>Safe Levels</b>	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.
<b>Standard</b>	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.
<b>SANAS</b>	means the South African National Accreditation System.
<b>TWA</b>	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

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

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

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

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

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

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

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

## C1.2 Contract Data

### Part two - Data provided by the *Contractor*

#### Notes to a tendering *Contractor*:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)<sup>2</sup> 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):	

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see [www.ecs.co.za](http://www.ecs.co.za)

	Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	<b>0%</b> <b>0%</b>
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: Experience:	CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .
11.2(14)	The following matters will be included in the Risk Register	
<b>A</b>	<b>Priced contract with activity schedule</b>	
11.2(20)	The <i>activity schedule</i> is in	
11.2(30)	The tendered total of the Prices is	<b>(in figures)</b> <b>(in words), excluding VAT</b>
	<b>Data for Schedules of Cost Components</b>	<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>
<b>A</b>	<b>Priced contract with activity schedule</b>	<b>Data for the Shorter Schedule of Cost Components</b>
41 in SSCC	The percentage for people overheads is:	<b>%</b>
21 in SSCC	The published list of Equipment is the last edition of the list published by	

	The percentage for adjustment for Equipment in the published list is	Minus	%		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate	
61 in SSCC	<p>The hourly rates for Defined Cost of design outside the Working Areas are</p> <p><b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</b></p> <p><b>(Please include all categories of employees who will be working on this Project. Contractor may wish to submit a separate table)</b></p> <p><b>Please insert another schedule if foreign resources may also be used</b></p>	Category of employee	Hourly rate		
62 in SSCC	The percentage for design overheads is	%			
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:				

## 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 X13:            Performance Bond**

This secondary Option requires a bond or guarantee “in the form set out in the Works Information”. Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Works Information.

**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 organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details.

**Pro forma Performance Bond – Demand Guarantee (for use with Option X13)** *(to be reproduced exactly as shown below on the letterhead of the Contractor's Parent Company)*

Eskom Holdings SOC Ltd  
Megawatt Park  
Maxwell Drive  
Sandton  
Johannesburg

Date:

Dear Sirs

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

**Performance Bond – Demand 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 Ltd, 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);
  - 1.8 “Project” - means [insert if applicable.].
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 Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;
  - 3.2 state the amount claimed (“the Demand Amount”);
  - 3.3 state 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 7 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 \_\_\_\_\_

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	23
C2.2	The <i>activity schedule</i>	26

## C2.1 Pricing assumptions: Option A

### How work is priced and assessed for payment

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

<b>Identified and defined terms</b>	11 11.2	(20) The Activity Schedule is the <i>activity schedule</i> 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.

### 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.

### 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*.

### 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;

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- 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
1		<b>Detailed Design &amp; Engineering (Accepted)</b>	
2		<b>Manufacturing completed</b>	
3		<b>Delivery to site</b>	
4		<b>Site Establishment and De-establishment</b>	
5		<b>Replacement of existing side cladding</b>	-
5.1		Access for executing the works	-
5.1.1		Scaffolding, rope access and mobile cranes for removal of existing, lifting, hoisting and installation of new cladding system.	
5.2		Protective barriers and screens	-
5.2.1		Provision of temporary barriers, screens, and protection measures to prevent damage to existing work and site equipment. This includes adequate construction warning signs and demarcations.	
5.3		Remove existing cladding, clean, remove debris and dispose of droppings found between cladding and steel girts. Old sheets are to be removed and new sheets replaced and secured immediately and in sequence. The <i>Contractor</i> is to ensure that no openings are left for an unreasonable period of time and certainly not over night or weekends, and that no rain is allowed to ingress into the buildings and damage equipment or disrupt production. <b>NOTE THAT EXISTING OPERATIONS WILL BE ONGOING IN THE BUILDING.)</b>	
5.4		Install new side wall cladding by supplying all labour, materials, equipment, services and perform all the work required for the erection of the complete installation of the exterior wall cladding with waterproofing included.  The rate includes the furnishing of shop detail drawings for acceptance by the Employer, working at heights equipment, services and certification.  Inclusive of all flashings. Protrusions such as pipes, ducts shall be adequately flashed where they pass through the sheeting surface. The <i>Contractor</i> shall ensure that all	

## MACHINE HALL CLADDING REPLACEMENT AT GARIEP POWER STATION

		materials used on site for cladding, etc. are transported, handled and stored in accordance with the manufacturer's recommendations.	
5.5		Install Steel girts and additional supports Additional girts required for levelling, alignment and spacing of support structure to be installed for the purpose of ensuring that the contact faces between girts/supports are maintained as per the manufacturer's specification and that the cladding are in the same plane at the required spacing. This includes the inspection of support structure, materials, fixings, and installation where required.	
<b>6</b>		<b>Testing for water tightness and leaks</b>	-
6.1		On completion of the work the cladding to be sprayed with water to check for any leaks. The cladding will be checked for water tightness and leaks with the onset of heavy rain and wind conditions. A written and approved five-year guarantee of site-workmanship and water tightness shall be issued on completion of the work.	
<b>7</b>		Training and maintenance manuals	
<b>8</b>		Time related Preliminary and General	
<b>9</b>		Fixed Preliminary and General	
<b>10</b>		<b>Health, Safety &amp; Environmental</b>	-
<b>10.1</b>		Prepare, submit, and obtain approval of safety plan/file and lodge same on site	
<b>10.2</b>		Personal Protective equipment	
<b>10.3</b>		Transportation & Accommodation of Employees	
<b>10.4</b>		Maintenance and revision(s), where necessary, of the safety plan/file and all activities (toolbox talks, audits etc) necessary to ensure compliance with the provision of the OHS act and project safety specification	
<b>10.5</b>		The contractor is to take cognisance of Eskom's requirements regarding environmental management, a copy of which is attached hereto and forms part of the contract documents. The contractor is to allow a lump-sum price which he deems sufficient to enable him to meet any cost he will encounter in the application of the various clauses in the EMP, for the entire duration of the contract	
<b>11</b>		<b>As-built drawings and documentation</b>	
		Total Price Excluding Vat	

C2.2 the *activity schedule*

## PART 3: SCOPE OF WORK

## C3.1: *EMPLOYER'S WORKS INFORMATION*

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## 1 Description of the works

### 1.1 Executive overview

The *works* make provision for the design, manufacture, supply and installation exterior Machine Hall Cladding Replacement at Gariep Power Station. The exterior wall cladding are replaced with Inverted Box Ribbed (IBR) profile Zinc Aluminium cladding with a pre-painted finish.

Gariep's first two machines went into commercial service in 1971 and the last two in March 1976, the station has been operating for 48 years. An inspection of the exterior wall cladding was undertaken and shows that the West End and South End is in the worst condition as it faces the direction where the wind force is the most severe. Sections of the cladding have blown off over time and re-securing was done to hold the panels in place. Gariep Power Station Machine Hall building is 137.708m long and 25.449m in width. The height of the Machine Hall is 20.449m. The side wall cladding consists of profiled arc-line aluminium anodized sheets secured to steel girts by means of hook bolts. The side cladding sheets is in turn fixed by means of self-tapping screws and sealed with an aluminium capping piece. The internal cladding consists of heraklith panels secured to timber brandering. It is estimated that there is 4500 m<sup>2</sup> of cladding to be replaced. The side cladding is working loose due to the component fixing system that is ageing. The perpetual exposure to inclement weather conditions as well as the vibrations caused during the operation of the station can also have an effect on the sheets becoming loose which ultimately contributes to the technical performance of the cladding system. The failure of the cladding system and the rate of deterioration may result in the sheets being blown off completely and may cause damage to plant and endanger personnel. The work entails replacing the existing side cladding with a conventional type and a modern fixing system at Gariep Power Station.

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

The *Employer's* objective is to replace the existing side cladding with a conventional type and a modern fixing system in order to:

- Improve the structural performance and integrity of the building.
- Mitigate the risk of injuries that can be triggered by a failed cladding system.
- Extend the Machine Hall Building design life cycle.
- Ensure modifications to existing and proposed structures are safe and pose no threat to Eskom employees and the environment.
- The cladding system to be durable, leak free and watertight.

### 1.2.1 Engineering Philosophy

The Machine Hall Building should have the structural integrity to withstand the loads imposed upon it and allows for safe operation of the plant.

### 1.2.2 Maintenance Philosophy

Maintenance of the *works* is kept at a minimum. Maintenance includes ease of inspection and replacement. Maintenance philosophy is to ensure long-term civil plant health.

### 1.2.3 Operating Philosophy

Perform maintenance and replacement of civil and building structures to increase the design and operating life.

## 1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
IBR	Inverted Box Rib
SANS	South African National Standards
AZ	Zinc Aluminium
DWG	Drawing File
ISO	International Organization for Standardization

## 2 Management and start up.

### 2.1 Management meetings

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 contractual communications will be in the form of properly compiled letters or forms with the company's letterhead attached to e-mails and not as a message in the e-mail itself.

### 2.3 Health and safety risk management

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

The Contractor shall comply with the Occupational Health and Safety Act No. 85 of 1993 and its regulations, Eskom Safety, Health, Environment and Quality (SHEQ) Policy 32-727), National Building Regulations as well as SANS 10400 for all works. Furthermore, the Contractor shall comply with any additional statutory requirements of any relevant Government Departments regarding health, safety and environmental.

- Eskom Project Manager shall instruct the Contractor to stop the work without penalty to the Employer when the Contractor's personnel do not adhere to acceptable health & safety standards or contravene the health and safety sections and regulations. The Project Manager shall be immediately or before the end of a particular shift informed of any injury or damage to property or equipment. The Contractor provides all the required safety and personal protective equipment to his staff for the duration of the contract.
- Gariep SHE Specification, OHS Baseline risk assessment, procedures, policies, guidelines and standards applicable to the works, used as Eskom's minimum requirements for Health and Safety, are provided to the Contractor.
- The Contractor shall comply with the requirements for COVID-19 as per Government Directive from Department of Employment and Labour (DEL); Consolidate COVID-19 Direction on Health and Safety Measures in Workplaces issued by the Minister in terms of Regulation 4(10) of the National Disaster Regulation.
- Only the latest version/ revision of the applicable legislation, acts and regulations throughout the duration of the contract, is applied at Gariep. The legislation that the Contractor shall comply with is but not limited to:
  - Compensation for Occupational Injuries and Diseases Act 130 of 1993
  - National Water Act 36 of 1998
  - Occupational Health and Safety Act and Regulations (85 of 1993)
  - Disaster Management Act 57 of 2002.
  - National Environmental Management Act 107 of 1998
  - Applicable South African National Standards (SANS)
  - National Road Traffic Act 93 of 1996
  - Basic Conditions of Employment Act 75 of 1997
  - National Veld and Forest Fire Act and Regulations 101 of 1998
  - Environmental Conservation Act and Regulations 73 of 1989

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- Committee of Land Transport Officials (COLTO)
- SACPCMP Act no. 48 of 2000
- Radiation Protection Act
- The Contractor shall establish and adhere to the health and safety of his own employees and those of its subcontractors so that high standards of personnel health and safety are achieved and maintained. The Contractor shall exercise and adhere to all necessary care and measures to preclude exposure of personnel, labour, and nearby residents (if any) to potential health hazards and environmental pollutants.
- The Contractor shall ensure that all persons who are employed and or deployed to work on site undergo police clearance and are certified to have no criminal records. This is required before any of the Contractor's employees are allowed or given access to start work on site.

**2.3.1 SHE File**

The Contractor is required to compile a SHE File to comply with the Employer's specification. The SHE file is submitted to the Project Manager for review and acceptance 14 days before the commencement of the works on site and includes, but are not limited to the following:

- Safety, Health and Environmental Plan (SHE Plan)
- SHE organizational structure and appointments
  -
- Planning of conduct of work activities including planning for changes and emergency work (Operational Plan)
- Management of PPE - Personal Protective Equipment (Procedure with PPE matrix)
- Emergency planning and fire risk management
- Vehicle and driver safety behaviour (Competency, Traffic Management, etc.)
- Subcontractor or supplier selection and management
- Personnel competency, training and appointment letters
- Communication and awareness Plan
- Behavioural Based Safety Procedure
- Employer's Baseline SHE Risk Assessment (BRA).
- Contractor's Baseline Risk Assessment in line with the Employer's BRA (Identification, assessment and management of Safety, Health and Environmental risks related to the scope of work). The methodology (matrix) used for the risk assessment is provided together with the BRA.
- Valid Letter of Good Standing (COIDA or equivalent)
- SHE policy signed by CEO/ MD - Complying to OHS Act Section 7 or ISO 45001
- Occupational hygiene and health risk assessment
- Medical surveillance
- Method Statements/ Safe Working Procedures
- COVID-19 Risk Assessments, COVID-19 compliance officer appointment and Workplace Plan

In addition, reference is made to Health and Safety Specification, for documents and policies which the Contractor is required to adhere to.

## 2.4 Environmental constraints and management

The *Contractor's* attention is drawn to the fact that the Power Station is situated in a highly sensitive area with respect to the environment.

The *Contractor* acquaints himself with all statutory and local environment regulations, by-laws and adheres to these without exception, especially the requirements of the National Environmental Management Act, Number 107 of 1998 and its Regulations.

Any waste that is generated shall be stored, labelled and disposed off in the manner prescribed in the applicable legislation governing the management of waste.

## 2.5 Quality assurance requirements

- The Quality Plan manages the overall quality of the project's main activities/milestones. It lists detailed activities in order of execution where each activity is described and references the associated work packages or specifications with witness-, hold- and verification points.
- The QCPs make provision for signatures indicating Completion by the *Contractor* and acceptance by the *Employer* at the end of each activity.
- The *Contractor* complies with all quality requirements as set out in Supplier Quality Management Specification 240-105658000.
- The *Contractor* complies with the latest version of the ISO 9001 Quality Management System
- The quality requirements are as per Eskom Standard, Supplier Quality Management Specification 240-105658000.
- The *Contractor* defines the level of QA/QC or inspection imposed on his Subcontractors and *Contractors*.
- The programming of inspections, hold and witness points are agreed between the *Employer* and the *Contractor* prior to undertaking any work or inspections.
- All technical design and implementation documentation and PQP are submitted to the *Employer* for Acceptance 4 weeks prior to the commencement of any *works* or inspections.

## 2.6 Programming constraints

- The *Contractor* submits a bar chart programme ( PDF format) detailing how the *works* are executed within the stipulated dates, including weekends and public holidays.
- The programme indicates the start date, Completion Date, duration and dependencies of each activity.

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

The *Contractor* provides an organogram depicting the resources during site implementation and their lines of authority and communication.

## 2.8 Invoicing and payment

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

2. The *Project Manager* to be copied in on all electronic invoices emailed.
3. Failure to submit the invoice to the correct address could result in delays in payment.
4. The *Contractor's* Tax Invoices comply with the requirements as stated in clause Z7 of the Contract Data
5. Invoices are submitted electronically to:
  - Local Eskom Invoices - [invoiceseskomlocal@eskom.co.za](mailto:invoiceseskomlocal@eskom.co.za)
  - Foreign Eskom Invoices - [invoiceseskomforeign@eskom.co.za](mailto:invoiceseskomforeign@eskom.co.za)
6. Details required when submitting invoices and additional data:
  - The subject line on your email should only contain your vendor number
  - Each invoice in PDF should be named with your invoice number only
  - All electronic invoices have to be sent in PDF format only
  - Attach the proof of delivery to your invoice
  - Where applicable, supporting documents has to be attached to the scanned PDF invoice as one attachment
  - A copy of the signed assessment certificate
  - CPA calculation sheet
  - Retention Certificate where it is a retention invoice
  - Any other appropriate documents, e.g.
  - For shipping invoices, please ensure the following documents are attached
  - Invoice (this should only reflect the shipping cost)
  - Commercial invoice
    - Delivery note
    - Your shipping costs calculation relevant to that invoice – not a generic calculation (The amount of the shipping costs calculation has to be balance on the amount on the invoice.)
    - Forwarding agent's invoice
    - The customs document
  - Please do not attach unnecessary documents as this will make the file too large
7. Other requirements:
  - For foreign invoices, suppliers is still required to physically deliver hard copies of original documents to the respective Document Management centres even though the invoices have been submitted electronically
  - Ensure compliance with the tax requirements for submitting invoices electronically
  - Each PDF should contain one credit note, one debit note or one credit note only. More than one invoice can be submitted per email

- Any CPA applicable has to be invoiced separately, so that if there are issues on the CPA, the rest of the invoices can be paid while the CPA issues are resolved

8. Include the following information on the Invoice:

- 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;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- *Contractor's* company registration number if applicable
- *Contractor's* banking details
- Name and address of recipient
- Tax invoice number and date of issue,
- Description of goods/service provided,
- Quantity or volume of goods/services
- Period time for which the Tax Invoice is being rendered,
- Relevant Task Order Number (commencing with a 45 prefix),
- Relevant line item number,
- Statement whether value added tax is included or excluded.

## 2.9 Insurance provided by the *Employer*

Insurance provided by the *Employer* is managed in accordance with clause 87 of the core clauses in ECC3

## 2.10 Contract change management

Contract change management is managed in accordance with clause 6 of the core clauses in ECC3. In summary, in the event that the *Employer/Contractor* notices a change, an event register is issued. If the event/change has cost implications then a quotation is submitted with the event register. The *Project Manager* assesses the quotation and gives an instruction in writing to the *Contractor*.

## 2.11 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.

The bond/s or guarantee required is provided within 2 weeks of the Contract Date.

The *Contractor* provides the construction guarantees for the complete works. The *Contractor* shall furnish the guarantees for their obligations in a letter format clearly stating the guarantees in relation to the scope of work.

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

In order to substantiate the Defined Cost of compensation events, the *Employer* requires the to keep records of amounts paid by him, in the following format:

Type of cost	Type of Record
People employed by the <i>Contractor</i> (labour)	Signed timesheets
Plant	Running hours for Plant
Materials	Register of materials used
Work subcontracted by the <i>Contractor</i>	Subcontractor's costs
Equipment	Register of Equipment used

## 2.13 Training workshops and technology transfer

Not applicable.

### 3 Engineering and the *Contractor's* design

#### 3.1 *Employer's* design

##### 3.1.1 Operating Philosophy

The exterior side wall cladding at Gariep Power Station consists of profiled arc-line aluminium anodized sheets secured to steel girts by means of hook bolts. The side cladding sheets is in turn fixed by means of self-tapping screws and sealed with an aluminium capping piece. The internal cladding consists of heraklith panels secured to timber branderling. The side cladding is working loose due to the component fixing system that is ageing. The perpetual exposure to inclement weather conditions as well as the vibrations caused during the operation of the station can also have an effect on the sheets becoming loose which ultimately contributes to the technical performance of the cladding system. The purpose of the exterior wall cladding is to provide protection against the elements for the design life of the power station.

The new cladding system provides ease of maintenance and replacement of civil and building structures to increase the design and operating life. Coating provides maximum protection against the local climate and other environmental factors. The replacement of the cladding to maintain the basic structure functionality by ensuring that the Machine Hall building is sound and safe i.e. its structural integrity is not compromised.

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

##### 3.2.1 Scope of work:

- Remove existing cladding, clean, remove debris, droppings found between cladding and steel girts. The *Contractor* protects columns and girts in the process of removal of existing cladding.
- This includes the furnishing of shop detail drawings for acceptance by the *Project Manager* prior to manufacturing. Submission and approval of all work methods, procedures and product specification to the *Project Manager* for acceptance.
- Design, manufacture, install, delivery and commission the complete cladding system (Installation by a specialist *Contractor*). The *Contractor* provides everything necessary including all labour, materials, equipment, and services (scaffolding etc.) and perform all the work required for the detailing, sketching and erection of the complete installation of the exterior wall cladding. The *Contractor* checks the drawings for conformity with design requirements.

The *Contractor* is responsible for the complete *works* based on the *Project Manager's* functional specification and that such designs are submitted to the *Project Manager* for acceptance prior to commencement with the manufacturing phase. The specification and detailing includes the complete cladding system that includes the flashings, fixings, detailing, dimensions, colour, waterproofing etc.

Detailed specifications/drawings and sketches of the complete cladding system to be provided by the *Contractor*.

##### 3.2.2 Particular Specifications

###### 3.2.2.1 Wall Cladding Profile

- Profiled sheets complies with the quality requirements of the relevant South African National Standards (SANS).
- The Cladding profile is IBR (Inverted Box Rib) 686 0.54 mm (AZ 200) Zinc Aluminium coated steel (Al-ZN). The sheeting are prepainted/ colour coated. Protected on both sides.
- The profile has five trapezoidal ribs at 171, 5 mm centres giving a nett cover of 686 mm with one stiffener rib in each pan. The rib height are 37 mm. See Figure 1 Below.
- The IBR sheeting are laid in strict accordance with the manufacturer's specification. The type of sheet and profile allows for the possibility of sheets being overloaded due to hail and construction loads. The cladding and fixing system is able to withstand the severities of the environmental conditions without deflecting.



Figure 1 IBR 686 profile 0.54 mm

- All cladding are prepainted of thickness 0.54mm, certified as complying with ISO 9001: 2015 Quality Management System.
- **Main fasteners** are Bremick B8 self-drilling fasteners for metal or approved equal. Number 12 – 24 x 2mm self-drilling Screw with 26mm aluminium bonded washer. The *Contractor* ensures that the correct fixings are used for the cladding, fasteners are compatible with the supporting underlying structure. The design life of the cladding are equal to that of the fixings.
- **Side lap fasteners** - 25mm Lg Topspeed screws are used for side lap stitching, 19 mm diameter bonded washers are used for side lap stitching.
- The *Contractor* provides a colour sample of the cladding prior to manufacturing the cladding for the acceptance by the *Project Manager*.
- The cladding system complies with SANS Roof and Cladding code of practice SANS 10237.

### 3.2.2.2 Fasteners and Washers

- All fasteners complies with the requirements of SANS 1273. In the case of fastener types not covered by SANS 1273, the *Contractor* provides assurance that the general requirements of SANS 1273 are met as stipulated in the standard. The *Contractor* provides a signed detailed report or letter indicating compliance with the general requirements of SANS 1273. The fastener class used ensures the life expectancy of the fasteners is at least similar to that of the cladding.
- Washers complies with the requirements of SANS 1273.
- The fasteners, washers and sealants are suitable for the specific application and are compatible with the sheeting in respect of corrosion, adhesion, long term flexibility, elasticity, temperature break-down and thermal effect, as relevant.
- The fasteners and washers are subject to deterioration resulting from ultra violet light, thermal movement and air-borne agents and is able to withstand these environmental conditions.

### 3.2.2.3 Fixing Details and Support Spacing

#### 3.2.2.3.1 Assembly of side cladding

- The assembly of the side wall cladding are fixed as seen in Figure 2 below.
- As per drawing [0.38/1702](#) the girt spacing is 1830mm (The *Contractor* verifies the girt spacing and check the span requirements for the new cladding system).
- Structural steelwork and any other materials that would otherwise be incompatible with the sheeting and lead to deterioration, are painted or otherwise prevented from making direct contact with the sheeting. The following points are specifically checked:
  - The purlins and rails are at the spacing as shown on the drawings.
  - That the overall dimensions of the roof, walls and gables correspond with those shown on the drawings.
  - That no protrusions such as bolt heads, rivet heads and splice plates appear on the face of the frame.
  - All holes for fasteners are drilled and not punched. Shavings and metal dust are removed before fixings and washers are positioned.
  - Side cladding are fixed by means of Bremick B8 self-drilling fasteners for metal or approved equal. Number 12 – 24 x 2mm self-drilling Screw with 26mm aluminium bonded washer. The bonded washer aids in distributing the load. The fastener to be used offers a 30 Year warranty. Washers and screw caps matches the colour of the cladding.

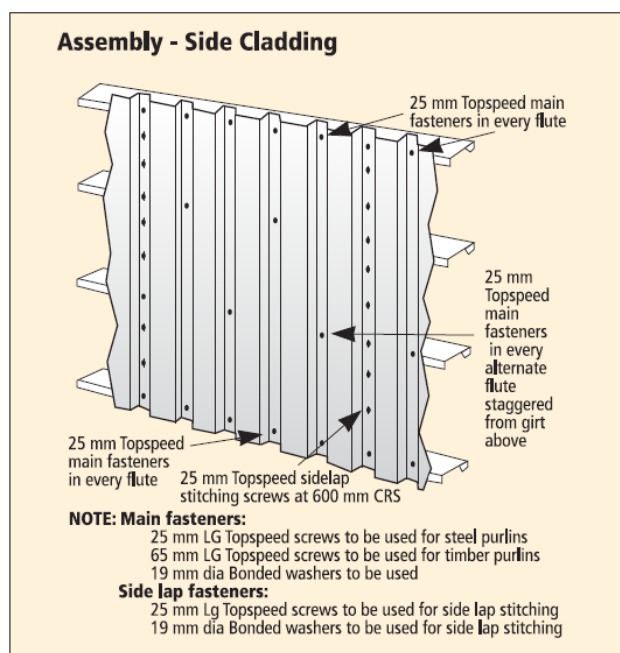


Figure 2 Fixing assembly and fasteners to be used.

### 3.2.2.3.2 Valley Fastening

- The method of pierced fastening is considered for the fixing of sheets. As shown in Figure 3 below.
- The method of pierced fastening through the valley between corrugations or flutes of IBR is recommended for wall cladding only.
- Valley fastened IBR requires a side lap fastener in each lap at each support and at midspan for fastener frequency and location as depicted below.

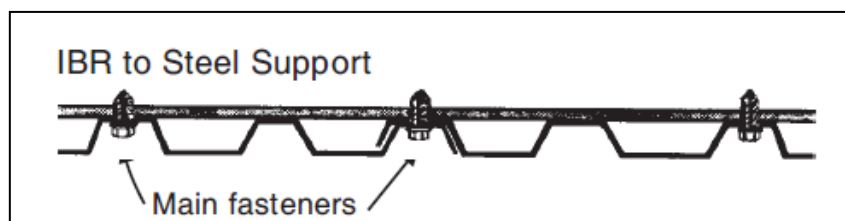


Figure 3 Typical valley fastener details with fastener over support at side lap

### 3.2.2.3.3 Side lap fastening

The maximum spacing for side lap fasteners along the wall should be on the girt and midspan between girts. The IBR sheeting are laid and fastened in strict accordance with the manufacturer's specification. See Figure 4 below for side lap fastener details.



Figure 4 Typical side lap fastener details

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

The *Contractor* submits drawings and specifications to the *Project Manager* for acceptance before manufacturing commences.

The *Contractor* is aware that all documents submitted for review to the *Employer* for acceptance requires a process of review as stipulated in the Eskom Engineering Change Management Procedure (240-5331402). This process consists of:

- Implementation/ Execution Documentation review
- Review updates by the *Contractor*
- Presentation and final acceptance by the *Employer*

#### 3.3.1 Process for Submission of Documents for review

The *Contractor* submits all documents according to the accepted engineering management plan. The process for the submission of documents is described below and applicable to each End-of-phase Design review:

- a) The *Contractor* submits the documents/drawings to the *Project Manager* with the appropriately reference Design Review Template (shared in the event of design clarification)
- b) The *Employer's* project team reviews the documents/drawings and submits all comments or inputs to the *Project Manager* and the submits to the *Contractor* for consideration
- c) If the *Employer* finds major deficiencies in the submitted documents/drawings, the *Contractor* revises the documents/drawings and resubmits to the *Project Manager*
- d) The *Employer* reviews the documents/drawings and if no major deficiencies are found, the *Contractor* organises a Design Review session
- e) The *Employer* and the *Contractor* conduct a Design Review
- f) If any fundamental errors were found in the designs or further actions are required, the *Contractor* records all concerns raised and revises the designs
- g) The *Contractor* organises a Design Review session once all designs were revised according to the concerns raised by the *Employer*
- h) If no fundamental errors were found in the designs during the Design Review session, the *Contractor* compiles the Design Review minutes or report and submits it to the *Project Manager*
- i) The *Employer's* Document Controller registers the report.
- j) The *Employer's* project team reviews the *Contractor's* report/minutes. If the report/minutes are not acceptable, the *Contractor* revises the report/minutes and resubmits to the *Project Manager*.
- k) The *Project Manager* accepts the *Contractor's* design once the report/minutes are accepted by the *Employer's* project team.

### 3.4 Other requirements of the *Contractor's* design

- Prior to manufacturing of cladding sheets the *Contractor* provides all the specification and detail design drawings of the cladding system to the *Project Manager* for acceptance.
- The *Contractor* informs the *Project Manager* regarding the construction methods prior to execution.
- The *Contractor* provides detailed procedures, describing step by step how the *Contractor* performs the works. The *Contractor* takes cognisance of the associated risks when working in close proximity to site plant and includes this in the plan to execute the works.

### 3.5 Use of *Contractor's* design

The *Employer* may use and copy the *Contractor's* design for any purpose connected with construction, use, alteration or demolition of the *works*.

### 3.6 Design of Equipment

The *Contractor* submits particulars of the design of an item of Equipment to the *Project Manager* for acceptance if the *Project Manager* instructs him to if needed as per clause 23.1.

### 3.7 As-built drawings, operating manuals and maintenance schedules

#### 3.7.1 Pre-implementation documentation

The *Contractor* provides the following for acceptance by the *Project Manager* prior to implementation:

- The *Contractor* provides the necessary drawings and specifications for all the *works* prior to commencement of *works*.
- All drawings generated are size A3. All accepted drawings generated are supplied by the *Contractor* in Electronic format (DWG) for the *Employer's* records and ownership.
- The *Contractor* submits comprehensive construction method statements for the *Project Manager* acceptance prior to commencement of the *works*. As a minimum, the *Contractor* provides a method statement of handling, lifting, installation, placing and storage of sheets. In order to develop a suitable Method Statement the *Contractor* has prior discussions and planning with the *Project Manager* about the appropriateness of the activity taking in to account safety, outage times, weather conditions etc. This includes method of dismantling and installation of sheets at the transformer area.
- The *Contractor* provides the actions required to prevent objects from falling.
- Quality Control Plans and Check Sheets.
- Specifications, Material Data Sheets, and Drawings.
- Warrantee and Guarantee certificates of the complete cladding system.
- A copy of the manufacturers updated ISO certificate confirming that the product is manufactured to the necessary standard.

#### 3.7.2 Post-implementation Documentation

The *Contractor* supplies the *Project Manager* with the following:

- Signed-off Quality Control Plan and Check sheets.
- Operation and maintenance manuals detailing installation care and maintenance procedures where required.
- Maintenance plan.
- *Contractor's* certification, warrantees and guarantee certificates for the complete cladding system.
- As-built drawings and product specifications. The *Contractor* checks all dimensions to ensure that the as-built information is correct for where modifications were made.

## 4 Procurement

### 4.1 People

#### 4.1.1 Minimum requirements of people employed on the Site

- a) All personnel, especially foreigners, working on the Site needs to have the applicable required work permits.
- b) All personnel have successfully completed the relevant training pertaining to their specific job output.
- c) At the end of each month the *Contractor* provides the *Employer* with the following details:
  - Names and identity numbers of personnel working on site for the contract
  - Number of hours each personnel has worked per day
  - Start and end times of personnel per day

#### 4.1.2 BBBEE and preferencing scheme

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Broad Based Black Economic Empowerment (as per clause Z3 of ECC3)

### 4.2 Subcontracting

#### 4.2.1 Preferred subcontractors

None

#### 4.2.2 Subcontract documentation, and assessment of subcontract tenders

None

#### 4.2.3 Limitations on subcontracting

None

#### 4.2.4 Attendance on subcontractors

None

#### 4.2.5 Acceptance of subcontractors

The *Contractor* submits a list of all subcontractors to the *Employer* for acceptance, before the appointment of any subcontractor.

### 4.3 Plant and Materials

#### 4.3.1 Quality

- The *Contractor* notifies the *Employer* of any proposed changes to the quality management system that affects the contract quality requirements, prior to implementing such changes.
- The *Contractor* rectifies to the satisfaction of the *Project Manager* all defects, or other faults, which may appear during the *defects period*.
- The quality requirements are as per Eskom Standard Supplier Quality Management Specification 240-105658000
- The *Contractor* defines the level of QA/QC or inspection imposed on his Subcontractors and suppliers.

- The programming of inspections, hold and witness points is agreed between the *Project Manager* and the *Contractor* prior to undertaking any work.
- The *Contractor* presents the Quality control procedures (QCP's) for the *Project Manager's* acceptance.

#### **4.3.2 Plant & Materials provided “free issue” by the *Employer***

None

#### **4.3.3 *Contractor's* procurement of Plant and Materials**

- The *Contractor* ensures prior to installation that the Equipment, materials and associated equipment delivered are not damaged during delivery to site.
- The Equipment is protected against any damages during storage, loading and transportation.

#### **4.3.4 Spares and consumables**

Not applicable.

### **4.4 Tests and inspections before delivery**

Inspection of building framework before installation is started, the supporting structure is inspected to check whether the girts are correctly placed in true planes and securely fixed.

### **4.5 Marking Plant and Materials outside the Working Areas**

Existing signage on the exterior wall cladding to be replaced.

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

The *Contractor* ensures that any sophisticated or highly specialised Equipment that is required in order to complete the *works* is put forward on notice to the *Project Manager*.

- All other Plant and Materials are to be provided by the *Contractor*.
- Suitable lifting equipment is used for off-loading and loading of the Equipment and associated equipment at the *works*.
- The *Contractor* ensures that all openings in the existing wall cladding is closed at the end of working day i.e. cladding sheets removed are replaced with new cladding the same day.
- The *Contractor* provides all the necessary tools, equipment, working at heights equipment, anchor points, mobile access etc. required to execute the *works*. During construction, the *Contractor* provides photographs of the *works* specifically the areas that are above ground level.
- Transportation of equipment and materials is the responsibility of the *Contractor*.

### **4.7 Cataloguing requirements by the *Contractor***

Not applicable.

## 5 Construction

### 5.1 Temporary works, Site services & construction constraints

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

- a) Before work starts on Site, a Site inaugural meeting is held between the *Contractor* and the *Employer*, where details of the *works* are discussed and clarified;
- b) The *Contractor's* Site Supervisor is on Site for the entire duration of the *works*.
- c) General access to the power station is controlled and Site induction has to be completed before work is allowed to start.
- d) It is mandatory that the *Contractor* adheres to all security regulations in force during the period of the contract.
- e) Before entry to the Site is allowed, everyone undergoes an alcohol breathalyser test which needs to be passed. This is one of the five Life-saving Rules to which the *Contractor* is required to adhere to at all times.

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

- a) The *Contractor* satisfies himself and complies with the Site conditions presented during induction
- b) The *Contractor* is required to comply with all Site restrictions pertaining to the Site's roads, walkways and barricades.

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

- a) Normal working hours:
  - Monday to Thursday: 07h00 – 16h00
  - Fridays: 07h00 – 12h00
- b) Outage working hours is as follows:
  - Monday to Sundays: 07h30 – 18h30

#### 5.1.4 Health and safety facilities on Site

The health and safety facilities on Site is discussed in detail during the Site induction

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

Not Applicable

#### 5.1.6 Title to materials from demolition and excavation

The *Contractor* has no title to plant and/or materials resulting from him carrying out the *works*.

#### 5.1.7 Cooperating with and obtaining acceptance of Others

All activities are performed according to the Accepted Programme.

#### 5.1.8 Publicity and progress photographs

No notice boards, advertising rights, media relations, photography and progress photographs is allowed without appropriate authorisation.

**5.1.9 Contractor's Equipment**

- The *Contractor* provides the *Project Manager* with a complete list of materials, tools, equipment, and or machinery before bringing it onto Site.
- The type and class of Equipment used is subject to the Acceptance by the *Project Manager*.
- The *Contractor's* measuring Equipment is accompanied by valid calibration certificates from an approved authority.
- The *Project Manager* may at any stage during the contract require such Equipment to be checked by an approved laboratory or the South African Bureau of Standards.

**5.1.10 Equipment provided by the Employer**

None.

**5.1.11 Site services and facilities****5.1.1.1 Electricity Supply**

- All points of supply are provided in terms of availability and location on-site.
- The *Employer* indicates which supply points may be used.
- 220V electrical supply is generally available in the power station complex.

**5.1.1.2 Water Supply**

- All points of supply are provided in terms of availability and location on-site.
- The *Employer* indicates which supply points may be used.

**5.1.1.3 Area for Site establishment and Storage**

- A storage area is indicated to the *Contractor*.
- An area for Site Establishment is indicated to the *Contractor*.
- Security to the *Contractor's* storage is the responsibility of the *Contractor*.
- The area allocated to the *Contractor* is reinstated to their former condition on Take over of the *works*.

**5.1.1.4 Sanitary facilities**

The *Contractor* makes use of the *Employer's* facilities in the Power Station.

**5.1.12 Facilities provided by the Contractor**

None

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

- The *Contractor* communicates disruptions and amount of time of the disruption to the *Project Manager* during the *works*.
- The *Contractor* is required to inspect the work and ensure that it is safe before execution. In the transformer areas, the *Contractor* ensures and communicate with the *Project Manager* regarding working times, construction methods, permits and down time requirements.

**5.1.14 Survey control and setting out of the works**

The *Contractor* performs a Construction Survey that includes set-out of points, lines, levels, horizontal control, vertical control and bench marking for the execution of *works*.

**5.1.15 Excavations and associated water control**

Not applicable.

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

The *Contractor* assesses the area to confirm the presents of services. Prior to commencement of any *works*, the *Contractor* ascertains from the relevant authorities the exact position, depth and level of all existing services in the area and makes provisions that is required by the services authorities concerned for the support, maintenance and protection of such services where required.

**5.1.17 Control of noise, dust, water and waste**

- Work is carried out in a Power Station environment. The *Contractor* keeps noise and dust to the minimum. The *Contractor* ensures proper housekeeping at all times.
- The *Contractor* arranges for the disposal of waste generated from the *works*, this exclude existing cladding sheets. The waste to be disposed off site at an approved waste disposal facility. Records and proof of disposal certificates are provided to the *Project Manager* for record keeping.

**5.1.18 Sequences of construction or installation**

All activities are performed according to the Accepted Programme.

**5.1.19 Giving notice of work to be covered up**

All notices and warnings follows the ECC3 requirements

**5.1.20 Hook ups to existing works**

- The *Contractor* provides sufficient Equipment and tools to carry out the work with reference to hook ups and access. The *Contractor* has all the necessary ancillary Equipment and hand tools available for the work. The *Project Manager* to request reserve plant should there be any doubt as to the efficiency or capability of the Equipment provided.
- The *Contractor* supplies all tools and Equipment for the *works* including safety harnesses approved by the *Employer* and stepladders with their inspection records.
- The *Contractor* provides safe rope access to perform the *works* where required. This is done in strict accordance with the OSH Act and Eskom requirements.

**5.2 Completion, testing, commissioning and correction of Defects****5.2.1 Work to be done by the Completion Date**

On or before the Completion Date the *Contractor* shall have done everything required to Provide the *Works*. 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.

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

Take over of the *works* is after successful commissioning of the *works* and before Completion is certified

**5.2.3 Materials facilities and samples for tests and inspections**

Not applicable.

**5.2.4 Commissioning**

The *Contractor* is responsible for Commissioning of the entire *works*.

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

Not applicable.

**5.2.6 Take over procedures**

Not applicable.

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

Access is granted to the *Contractor* for defects correction as per core clause 43.4 in ECC3

**5.2.8 Performance tests after Completion**

Not applicable.

**5.2.9 Training and technology transfer**

Not applicable.

**5.2.10 Operational Maintenance after Completion**

The *Contractor* lists any specialised maintenance task that is required after installation of the cladding system. This may comprise items such as waterproofing, fixity, material specifications, frequency etc. This is handed over to the *Employer* for record purposes after completion.

## 6 Plant and Materials standards and workmanship

### 6.1 Investigation, survey and Site clearance

- The *Contractor* conducts a thorough site investigation of existing facilities and the area around which he is to do his work before he commences with any part of the work as detailed in this contract.
- If the *Contractor* require access to specific areas, this is arranged with the *Project Manager* and notifying in advance.
- The *Employer* to dispose existing cladding sheets and associated metal waste through Eskom Disposal Procedure.

### 6.2 Building works

Not applicable.

### 6.3 Civil engineering and structural works

Materials and workmanship complies with the following specifications. The following SANS specifications for Civil Engineering is applicable to the work.

The revisions and amendments of the Specification documents that apply are the latest revisions and amendments in force at the time of the contract award.

Reference number	Title	Tick if Publicly available
SANS 1200	1200 series specification for civil work	
SANS00 HB	Standardized Specification for Civil Engineering construction Section HB: Cladding and sheeting	
SABS 1200 H 1990 3	Standardized specification for civil engineering construction Section H: Structural steelwork	
(SANS 10400-K: 2011)	(SANS 10400-K: 2011) and Cladding Manuals.	
GSR, IBR 2014	Global Solutions Steel and Roofing design Manuals	
SANS 1273:2011	Fasteners for roof and wall coverings in the form of Sheeting	
SANS 1200 HC	Corrosion protection of structural steelwork	
SANS 10237:1991	Code of Practice Roof and Side Cladding	
SANS 10120-HB	Code of Practice: Cladding and sheeting	
SANS 0160:1989	The general procedure and loadings to be adopted for design of buildings	

**6.4 Process control and IT works**

None.

**6.5 Other**

Reference number	Title	Tick if Publicly Available
240-54179170	Classification and designation of technical documentation	*
240-86973501	Eskom Engineering Drawing Standard – Common Requirements	*
240-105658000	Supplier Quality Management Specification	*
240-62196227	Eskom Life Saving Rules	*
	The Occupational Health and Safety Act No. 85 of 1993 and Regulations	*
	The Compensation for Occupational Injuries and Diseases Act No.130 of 1993, amended by government notices to 30 April 2004 or Equivalent	
ISO 9001: 2015	Quality Management System.	

## 7 List of drawings

### 7.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer*.

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

Drawing number	Revision	Title
0.38/2049	2	Detail of Arc-line cladding
0.38/611	1	Details of cladding at Columns
0.38/2489	4	Level 31155 Plan Layout
18.38/3571	0	Floor Plan Elevations and Section
0.38/1702	5	Internal Wall Cladding

The drawings provided by the *Employer* are for reference only. The *Contractor* verifies the correctness of these drawings against the as-built condition prior to commencing with the *works*. The correctness must also be checked at the site clarification meeting.

## 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.

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## PART 4: SITE INFORMATION

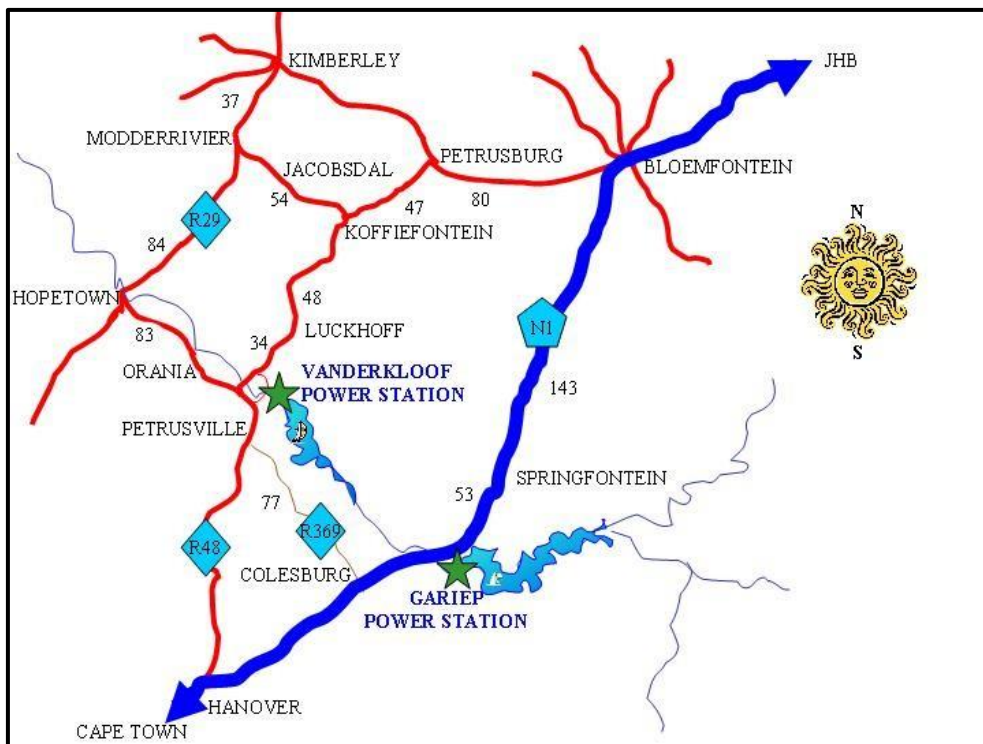
### General description

**Location:** 300 metres downstream of the Gariep Dam wall on the banks of the Orange River, near Norvalspont in the Eastern Cape.

**History:** Gariep's first two machines went into commercial service in 1971 and the last two in March 1976. The station was originally named after its political sponsor, Hendrik Verwoerd, and is 31 years old this year.

**General:** A feature of Gariep's machines is that they can be used as synchronous condensers, helping to stabilise the operation of the high-voltage interconnected system. Electricity from Gariep is fed into the Eskom network at the Hydra Distribution Station near De Aar, which is one of the distribution stations fed by the transmission lines linking the Western Cape with the power stations in Mpumalanga

GPS Co-ordinates: S30.62396 / E25.50403



## Existing buildings, structures, and plant & machinery on the Site

The following as built drawings are applicable to the works:

Drawing number	Revision	Title
0.38/2049	2	Detail of Arc-line cladding
0.38/611	1	Details of cladding at Columns
0.38/2489	4	Level 31155 Plan Layout
18.38/3571	0	Floor Plan Elevations and Section
0.38/1702	5	Internal Wall Cladding

## Subsoil information

Not Applicable.

## Hidden services

The Contractor is to assess the area to confirm the presence of services.

## Other reports and publicly available information

Gariep Dam precinct normally receives about 273mm of rain per year, with most rainfall occurring mainly during summer.. It receives the lowest rainfall (3mm) in June and the highest (51mm) in March. The monthly distribution of average daily maximum temperatures shows an average midday temperatures for Gariep Dam range from 15.8°C in June to 31.3°C in January. The region is the coldest during July dropping to 0.2°C on average during the night. The average monthly wind speed is around 4 m/s. In recent years the maximum sustained wind speed taken from the closest available data source to Gariep Dam has reached 57 km/h.