



## NEC3 Engineering & Construction Contract

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

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

for **Post Construction Site Rehabilitation at Ingula  
Pumped Storage Scheme**

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**CONTRACT No. 46\*\*\*\*\***

## Part C1: Agreements & Contract Data

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[to be inserted from Returnable Documents at award stage]	
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[to be inserted from Returnable Documents at award stage]	
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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:

#### **POST CONSTRUCTION SITE REHABILITATION AT INGULA PUMPED STORAGE SCHEME**

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

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

Options A	The offered total of the Prices exclusive of VAT is	R [•]
	Sub total	R [•]
	Value Added Tax @ 15% is	R [•]
	The offered total of the amount due inclusive of VAT is <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:**

Name &  
signature of  
witness

(Insert name and address of  
organisation)

Date

Tenderer's CIDB registration number (if applicable)

<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.

Signature(s)

Name(s)

Capacity

**for the  
Employer**

Name &  
signature of  
witness

(Insert name and address of  
organisation)

Date

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

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

Note:

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

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

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

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

**For the tenderer:****For the Employer**

Signature

Name

Capacity

On behalf  
of*(Insert name and address of organisation)**(Insert name and address of organisation)*Name &  
signature  
of witness

Date

## C1.2 ECC3 Contract Data

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

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: Priced contract with activity schedule</b>
	dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	and secondary Options	
		<b>X2 Changes in the law</b>
		<b>X4: Parent company guarantee</b>
		<b>X5: Sectional Completion</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>Thulani Nene</b>
	Address	<b>Ingula Power Station</b>
	Tel	<b>0177992156</b>
	Fax	<b>[•]</b>
	e-mail	<b>nenets@eskom.co.za</b>

10.1	The <i>Supervisor</i> is: (Name)	Mfundo Khubisa									
	Address	Ingula Power Station									
	Tel No.	+27 13 699 7870									
	Fax No.	[•]									
	e-mail	khubismr@eskom.co.za									
11.2(13)	The <i>works</i> are	The landscaping and rehabilitation of all areas disturbed during the construction phase of the power station									
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> <li>• Inclement weather (rain, wind, snow, hailstorm, heatwave, tornados, cold spells)</li> <li>• Flooding</li> <li>• Labour strikes</li> <li>• Community unrest</li> <li>• Power supply interruptions or failure</li> <li>• Fire and smoke</li> <li>• Biodiversity</li> <li>• Unforeseen geological conditions</li> <li>• Pandemics and epidemics</li> <li>• Wildlife</li> </ul>									
11.2(15)	The <i>boundaries of the site</i> are	All areas falling under the jurisdiction of Eskom Ingula 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	7 calendar days									
<b>2</b>	<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.									
<b>3</b>	<b>Time</b>										
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	20 October 2025									
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<table> <thead> <tr> <th></th><th><i>Condition to be met</i></th><th><i>key date</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Site Establishment Complete</td><td>31 January 2025</td></tr> <tr> <td>2</td><td>Area A – Aggregate stockpiles landscaping complete and ready for topsoiling</td><td>31 March 2025</td></tr> </tbody> </table>		<i>Condition to be met</i>	<i>key date</i>	1	Site Establishment Complete	31 January 2025	2	Area A – Aggregate stockpiles landscaping complete and ready for topsoiling	31 March 2025
	<i>Condition to be met</i>	<i>key date</i>									
1	Site Establishment Complete	31 January 2025									
2	Area A – Aggregate stockpiles landscaping complete and ready for topsoiling	31 March 2025									

	3	Area A Works – Works complete in accordance with Part C3 (excluding hydro seeding)	30 May 2025
	4	Areas B, C, D – Works complete in accordance with Part C3 (excluding hydro seeding)	15 July 2025
	5	Areas E, F, G – Works complete in accordance with Part C3 (excluding hydro seeding)	15 August 2025
	6	Areas H, I, J, K – Works complete in accordance with Part C3 (excluding hydro seeding)	20 September 2025
	7	Areas A to L – Works complete including hydro seeding	15 October 2025
	8	Site establishment complete	20 October 2025
30.1	The <i>access dates</i> are:		Part of the Site
	1	Whole of Site	Date 06 January 2025
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		06 January 2025
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than		Four (4) weeks.
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.		
4	<b>Testing and Defects</b>		
42.2	The <i>defects date</i> is		Fifty-two (52) weeks after Completion of the whole of the <i>works</i> .
43.2	The <i>defect correction period</i> is		Two (2) weeks
	except that the <i>defect correction period</i> for		Safety is 1 day
	and the <i>defect correction period</i> for		Environmental is 2 days
5	<b>Payment</b>		
50.1	The <i>assessment interval</i> is		between the 20 <sup>th</sup> and the 19 <sup>th</sup> of each successive month.
51.1	The <i>currency of this contract</i> is the		South African Rand.
51.2	The period within which payments are made is		2 weeks.

51.4 The *interest rate* is

the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and

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

<b>6</b>	<b>Compensation events</b>	
60.1(13)	Assumed values for the ten-year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	As stated in Part C4: Site Information and Annexure A in Part C1.
<b>7</b>	<b>Title</b>	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
<b>8</b>	<b>Risks and insurance</b>	
80.1	These are additional <i>Employer's</i> risks	1. None
<b>9</b>	<b>Termination</b>	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
<b>10</b>	<b>Data for main Option clause</b>	
A	Priced contract with activity schedule	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
<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).
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the 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	Johannesburg, Gauteng, 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>	
<b>X2</b>	<b>Changes in the law</b>	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
<b>X4</b>	<b>Parent company guarantee</b>	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
<b>X5</b>	<b>Sectional Completion</b>	
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	
	<u><b>Section</b></u>	<u><b>Description</b></u>
	<b>1</b>	Site Establishment Complete
		<u><b>Completion date</b></u>
	<b>2</b>	Area A – Aggregate stockpiles landscaping complete and ready for topsoiling
	<b>3</b>	Area A Works – Works complete in accordance with Part C3 (excluding hydro seeding)

	4	Areas B, C, D – Works complete in accordance with Part C3 (excluding hydro seeding)	15 July 2025
	5	Areas E, F, G – Works complete in accordance with Part C3 (excluding hydro seeding)	15 August 2025
	6	Areas H, I, J, K – Works complete in accordance with Part C3 (excluding hydro seeding)	20 September 2025
	7	Areas A to L – Works complete including hydro seeding	15 October 2025
	8	Site establishment complete	20 October 2025
<b>X5 &amp; X7</b>	<b>Sectional Completion and delay damages used together</b>		
X7.1 X5.1	Delay damages for late Completion of the sections of the works are:		
	<u><b>Section</b></u>	<u><b>Description</b></u>	<u><b>Amount per day</b></u>
	1	Site Establishment Complete	R2 000.00
	2	Area A – Stockpiles landscaping complete and ready for topsoiling	R10 000.00
	3	Area A Works – Complete in accordance with Part C3 (excluding hydro seeding)	R10 000.00
	4	Areas B, C, D – Works complete in accordance with Part C3 (excluding hydro seeding)	R10 000.00
	5	Areas E, F, G – Works complete in accordance with Part C3 (excluding hydro seeding)	R10 000.00
	6	Areas H, I, J, K – Works complete in accordance with Part C3 (excluding hydro seeding)	R10 000.00
	7	Areas A to L – Works complete including hydro seeding	R20 000.00
	8	Not Achieving Completion by the Completion Date	R20 000.00

	The total delay damages payable by the <i>Contractor</i> does not exceed:	10 % of the Total of the Prices at Contract Date
<b>X13</b>	<b>Performance bond or Cash Guarantee</b>	
X13.1	The amount of the performance bond or cash guarantee is	<ol style="list-style-type: none"> <li>5% of the total of the Prices at Contract Date in cash within four (4) weeks of the Contract Date <u>Or /</u></li> <li>10% of the total of the Prices at Contract Date in the form of an On-Demand Performance Bond within four (4) weeks of the Contract Date</li> </ol>
<b>X16</b>	<b>Retention</b>	
X16.1	The <i>retention free amount</i> is	R0.00
	The <i>retention percentage</i> is	7.5%
<b>X18</b>	<b>Limitation of liability</b>	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	the total of the Prices at the Contract Date
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	the amount of the deductibles relevant to the event
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	<p>The greater of</p> <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 <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.</li> </ul>
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 at Contract Date 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), <ul style="list-style-type: none"> <li>death of or injury to a person and</li> <li>infringement of an intellectual property right.</li> </ul> </li> </ul>
X18.5	The <i>end of liability date</i> is	(i) 5 years after the <i>defects date</i> for latent

		<p><b>Defects and</b></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>
<b>Z</b>	<b>The Additional conditions of contract are</b>	<b>Z1 to Z15 always apply.</b>
<b>Z1</b>	<b>Cession delegation and assignment</b>	
	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.
<b>Z2</b>	<b>Joint ventures</b>	
	Z2.1	If the <i>Contractor</i> 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 <i>Employer</i> for the performance of this contract.
	Z2.2	Unless already notified to the <i>Employer</i> , the persons or organisations notify the <i>Project Manager</i> within two weeks of the Contract Date of the key person who has the authority to bind the <i>Contractor</i> on their behalf.
	Z2.3	The <i>Contractor</i> does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the <i>Employer</i> having been given to the <i>Contractor</i> in writing.
<b>Z3</b>	<b>Change of Broad Based Black Economic Empowerment (B-BBEE) status</b>	
	Z3.1	Where a change in the <i>Contractor's</i> legal status, ownership or any other change to his business composition or business dealings results in a change to the <i>Contractor's</i> B-BBEE status, the <i>Contractor</i> notifies the <i>Employer</i> within seven days of the change.
	Z3.2	The <i>Contractor</i> is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the <i>Project Manager</i> within thirty days of the notification or as otherwise instructed by the <i>Project Manager</i> .

- 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 Subcontractor 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.

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

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

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

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

**Z13 Insurance****Z 13.1 Replace core clause 84 with the following:****Insurance cover 84**

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

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

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

**INSURANCE TABLE A**

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage to the works, Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance  The <i>Employer's</i> policy deductible, as Contract Date, where covered by the <i>Employer's</i> insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the works, 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 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

**Z 13.2**

**Replace core clause 87 with the following:**

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

**INSURANCE TABLE B**

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

Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

## Z14 Nuclear Liability

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

## Z15 Asbestos

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

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

<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)

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .		
11.2(3)	The <i>completion date</i> for the whole of the works is			
11.2(14)	The following matters will be included in the Risk Register			
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:			
31.1	The programme identified in the Contract Data is			
<b>A</b>	<b>Priced contract with activity schedule</b>			
11.2(20)	The <i>activity schedule</i> is in	(in figures)  (in words), excluding VAT		
11.2(30)	The tendered total of the Prices is			
<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:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by  The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are  <b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</b>  <b>Please insert another schedule if foreign resources may also be used</b>	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:	
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## 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 X4: Parent company guarantee

Option X13: Performance Bond

Each of these secondary Options 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 (not used with Option F)

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

The *Contractor* shall guarantee his ASGI-SA Obligations by providing the *Employer* with an ASGI-SA Guarantee in the form provided here.

**[Note to contract compiler: If there are no ASGI-SA Obligations in this contract, delete the above statement]**

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. The completed document is then given to the *Employer* within the time stated in the contract.

## Pro forma Parent Company Guarantee (for use with Option X4)

(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,

### Parent Company Guarantee for Contract No

With reference to the above numbered contract made or to be made between

Eskom Holdings SOC Ltd

(the *Employer*) and

{Insert registered name and address of the *Contractor*}

(the *Contractor*), for

{Insert details of the *works* from the Contract Data}

(the *works*).

I/We the undersigned

on behalf of the *Contractor's*  
parent company

of physical address

and duly authorised thereto do hereby unconditionally guarantee to the *Employer* that the *Contractor* shall Provide the Works in accordance with the above numbered Contract.

1. If for any reason the *Contractor* fails to Provide the Works, we hereby agree to cause to Provide the Works at no additional cost to the *Employer*.
2. If we fail to comply with the terms of this Deed of Guarantee, the *Employer* may itself procure such performance (whether or not the Agreement be formally determined). The *Employer* is to notify us and we shall indemnify the *Employer* for any additional cost or expense it incurs.
3. Our liability shall be as primary obligor and not merely as surety and shall not be impaired or discharged by reason of any arrangement or change in relationship made between the *Contractor* and the *Employer* and/or between us and *Contractor*; nor any alteration in the obligations undertaken by the *Contractor* or in the terms of the Agreement; nor any indulgence, failure, delay by you as to any matter; nor any dissolution or liquidation or such other analogous event of the *Contractor*.
4. The *Employer* shall not be obliged before taking steps to enforce the terms of this Deed of Guarantee to obtain judgement against the *Contractor* in any court or other tribunal, to make or file any claim in liquidation (or analogous proceedings) or to seek any remedy or proceed first against the *Contractor*.
5. This Deed of Guarantee shall be governed by and construed in accordance with the laws of the Republic of South Africa and we hereby submit to the non-exclusive jurisdiction of the High Court of South Africa.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 200\_

Signature(s)	
Name(s) (printed)	
Position in parent company	
Signature of Witness(s)	
Name(s) (printed)	

## 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]

In this Guarantee the following words and expressions shall have the following meanings:-

“Bank” - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]

“Bank’s Address” - means [●]; [Drafting Note: Bank’s physical address to be inserted]

“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])

“Contractor” – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]

“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].

“Expiry Date” - means the date on which the Defects Certificate is issued in terms of the Contract.

“Guaranteed Sum” - means the sum of R [●] ([●] Rand);

“Project” - means [insert if applicable.].

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.

A demand for payment under this guarantee shall be made in writing at the Bank’s address and shall:

be signed on behalf of Eskom by a Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;

state the amount claimed (“the Demand Amount”);

state that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

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:

is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

The Bank's obligations in terms of this Guarantee:

shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

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.

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.

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.

This Guarantee:

shall expire on the Expiry Date until which time it is irrevocable;

is, save as provided for in 0 above, personal to Eskom and is neither negotiable nor transferable;

shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

shall be regarded as a liquid document for the purpose of obtaining a court order; and

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.

Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

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 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Works Information</i>	39
	Total number of pages	40

C3.1: EMPLOYER’S WORKS INFORMATION

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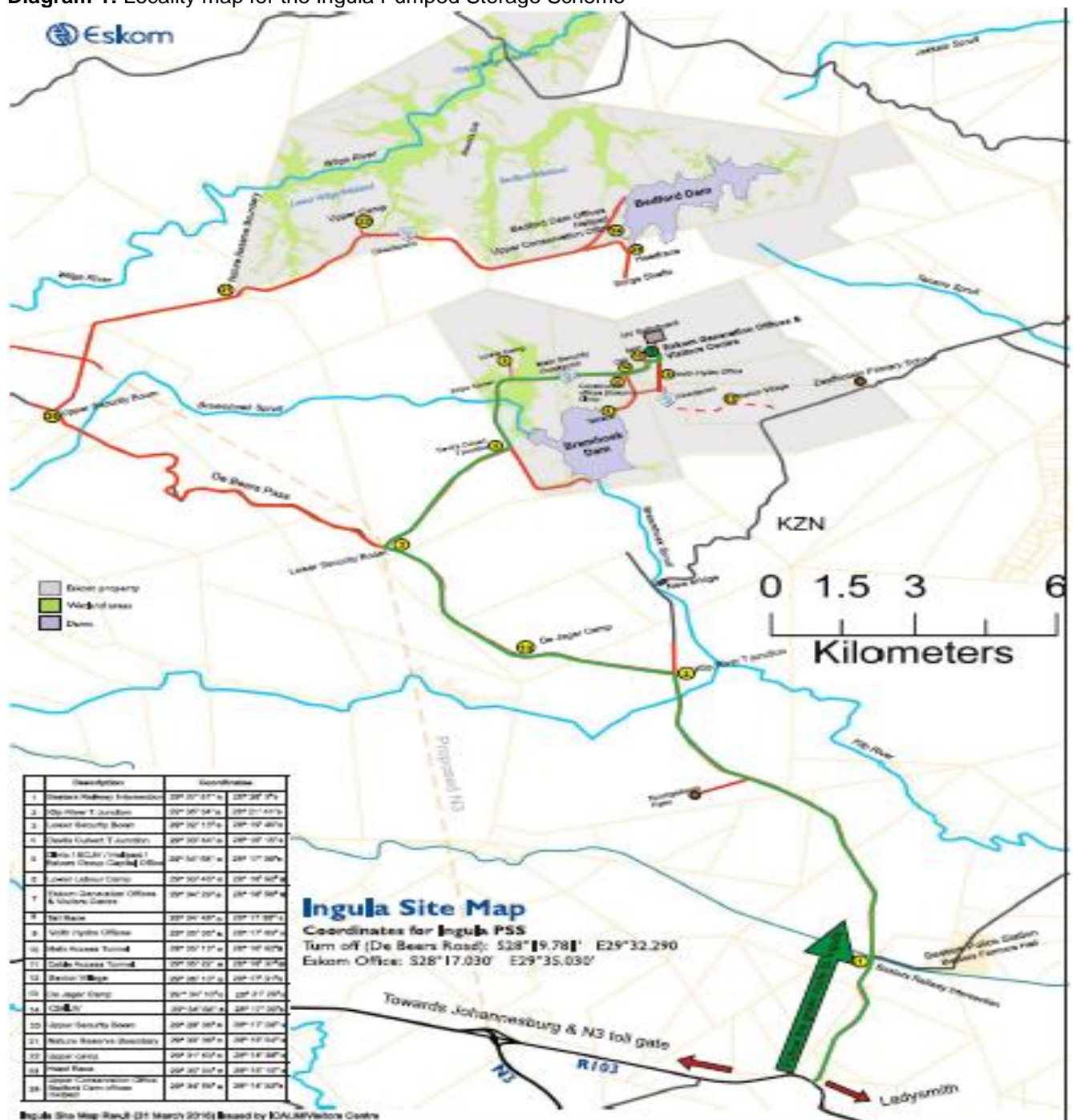
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## DESCRIPTION OF WORKS

### Executive overview

The Ingula Pumped Storage Scheme (IPSS) is located approximately 23 km northeast of Van Reenen. It straddles the Little Drakensberg escarpment, which forms the border between the Free State and KwaZulu-Natal Provinces of South Africa. Construction of the power station commenced in 2005. The Power Station was commissioned by Eskom between 2016 and 2017 and consists of an upper dam (Bedford) and a lower dam (Bramhoek) approximately 5 km apart and connected by underground tunnels and the underground Powerhouse complex. In 2023 and 2024 Eskom embarked on several contracts to bring Ingula in line with the Critical Infrastructure Protection act and to be declared as a national Key Point.

Diagram 1: Locality map for the Ingula Pumped Storage Scheme



The most recent projects were executed in 2023 and 2024 and included the following:

- The upgrade of the permanent water supply.
- Access road, security building and miscellaneous infrastructure.
- Fencing and lighting
- Integrated access control and CCTV project.

These projects as well as the historic projects have resulted in an impact on the footprint of the environment which requires landscaping and revegetation. This works information describes the contract management and execution process for the identified areas and activities for rehabilitation.

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

The *Employers* Objective of this contract is to rehabilitate all areas that were disturbed by various construction activities undertaken during the construction of the power station and other related infrastructure. This scope of the work requires that the permanent landscaping and rehabilitation of disturbed areas, including but not restricted to the area of the works, laydown areas and temporary office areas, temporary access roads, the areas disturbed during the laying of pipelines and construction of access roads, the temporary lower site access road through the farm Zaaifontein, all stockpile areas as well as such other areas as may be instructed by the *Supervisor*. Such rehabilitation shall be carried out in accordance details provided in this Works Information and as instructed by the *Supervisor*.

### **Interpretation and terminology**

Wherever the following words or phrases are used in the listed or referred documentation, they are interpreted in this contract as follows:

<b>Word or Phrase</b>	<b>Interpretation</b>
Eskom Holdings (Eskom or Electricity Supply Commission) in the context of: Owner Insurer of the Works Paymaster A party to the contract	The <i>Employer</i> .
Eskom Holdings in the context of: A duty or procedure to be performed the administration of the contract	The <i>Project Manager</i> or <i>Supervisor</i> as determined by the conditions of contract.
Accepted or approved by (or to the satisfaction of) the <i>Project Manager</i> , Engineer, <i>Employer</i> or the Architect.	Accepted by the <i>Project Manager</i> or the <i>Supervisor</i> .
A duty, procedure, decision or action of the Engineer, <i>Employer</i> or the Architect and or the Superintendent, Eskom's Representative, Site Supervisor or Clerk of Works	An action of the <i>Project Manager</i> or the <i>Supervisor</i> depending on the context. Clause 14 of the Core Clauses determines what the actions of each are. Either may delegate in terms of Clause 14.2

The following environmental definitions are used in this Works Information:

Terminology	Definition given to the terminology
Shaping	means finishing all slopes which do not form part of the permanent works so that they do not exceed a maximum gradient of 1:3, unless otherwise directed by the <i>Supervisor</i>
Trimming	means bringing the existing or previously shaped ground to a smoothly flowing surface with the final levels generally following the original topography
Scarifying	means loosening the soil by mechanical means in areas which has become hard and compacted and which needs to be loosened in order to facilitate re-vegetation.
Ripping	Means loosening the soil, mechanical means, in areas which has become hard and compacted and which needs to be loosened in order to facilitate re-vegetation.
Landscape	means the physical form of the land including relief, hillslope profiles, slope length, steepness, drainage, human interventions that modify appearance, function and surface roughness.
Rehabilitation	means to restore the environment to a former/original or specified condition with an intention to repair damaged environment structure and function.
Revegetation	means establishing vegetation where there previously was vegetation but lost or destroyed. In the sequence of rehabilitation actions, revegetation follows restoration of the required land capability and development of the landscape.
Topsoil	Means the upper layer of earthy material, usually the top 0,1 m to 0,3 m. It is the highest concentration of organic matter and microorganism where most of the biotic soil activity occurs.

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
RoD	Record of Decision
WUL	Water Use Licence
LAN	Limestone Ammonium Nitrate
EA	Environmental Authorisation

## MANAGEMENT START-UP

### Management meetings

A **weekly site meeting** shall be held to monitor and update technical, progress, programme and administrative matters at a work activity level. The meeting shall be chaired by the *Supervisor* and attended by the *Contractor*, *Project Manager* and the *Employer's Project Team*

A **monthly progress meeting** shall be held to monitor and update with technical, progress, programme and administrative matters at a project management level. The meeting shall be chaired by the *Project Manager* and attended by the *Supervisor*, the designers, *Contractor* and the *Employer's Project Team*.

A **monthly measurement meeting** shall be held to monitor and update the processing of the *Contractor's* invoices, backup documentation, and monitoring of the activity schedule. The *Contractor* shall present a monthly report at this meeting which will include graphs of actual progress against tendered progress as well

as cumulative actual cost against cumulative tendered cost as per the tendered programme. The format of this monthly report as well as the level of detail of its contents shall be agreed with the *Supervisor*.

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk reduction and compensation events	As and when required	At the <i>Project Managers</i> offices	<i>Project Manager, Supervisor, Contractor, Employer</i> , other parties approved by the <i>Project Manager</i>
Overall contract progress and feedback	Weekly	At the <i>Project Managers/Supervisor's</i> offices	<i>Project Manager, Supervisor, Contractor</i> , other parties approved by the <i>Project Manager</i>
Measurement for work done	Monthly	At the <i>Project Managers/ Quantity Surveyors</i> office	<i>Project Manager, Supervisor, Contractor, Employer</i> , other parties approved by the <i>Project Manager</i>
SHEQR	Weekly	At the <i>Project Managers</i> office	<i>Project Manager, Supervisor, Contractor, Employer, SHEQR team from Contractor and Project Manager</i>

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.

## Documentation control

### Documentation to be provided by the Employer.

The *Contractor* will be provided with one copy of the contract, i.e. of the signed form of agreement together with the documents which would make up the contract as identified in the form of agreement.

### Document Identification

All documents issued shall be numbered, dated and registered in an on-site project document management system, maintained by the *Contractor* and conforming to the *Contractor's* Quality Plan, subject to the acceptance of the *Project Manager*. All changes to such documents shall be made in writing with such revisions also recorded in the above document management system.

All documents shall be available at their recorded locations as noted in the document management system. Refer to Reporting and Data Requirement specification for Contractors (240-83561037).

All documents supplied by the *Contractor* are subject to the *Employer's* acceptance. The language of all documentation is required to be in English.

### Document Submission

Within three (3) weeks of the starting date, the *Contractor* submits a comprehensive time schedule for submission of all documentation including (where applicable) drawings, design calculations, schematics,

wiring tables/diagrams, manuals, procedures, quality control plans and any other information for the review and acceptance by the *Project Manager*.

All project documents must be submitted to the delegated *Employer's* representative with transmittal note according to Project / Plant Specific Technical Documents and Records Management Work Instruction (240-76992014). In order to portray a consistent image, it is important that all documents used within the project follow the same standards of layout, style and formatting as described in the Plant Specific Technical Documents and Records Management Work Instruction.

The *Contractor* is required to submit documents as electronic and hard copies and both copies must be delivered to the *Project Manager* or representative delegated by the *Project Manager* with a transmittal note.

### **Email Subject**

The *Contractor* submits all documentation to the *Project Manager* in the following media:

Electronic copies are submitted to Eskom Documentation Centre. The email subject as a minimum has the following: (Station\_Project Name\_Discipline\_Subject). Electronic copies that are too large for email are delivered on an ORIGINAL plus one (1) COPY and one (1) USB Memory Stick or Flash Drive, large file transfer protocol and/or hard drives to the Project Documentation Centre. In a case where USB Memory Stick or Flash Drive has been submitted, a notification email, with the transmittal note attached, is sent to the project. The *Project Manager* is copied on the email as well.

Hard copies are submitted to the *Project Manager* accompanied by the Transmittal Note.

### **Electronic Data Control**

The *Contractor* shall carry out a daily backup of all electronic information contained on the computer system on site. Electronic backup information shall be kept in an appropriate format, suitably labelled, segregated and stored in an environment that will not adversely affect its condition.

#### **2.2.6 Daily Records**

The *Contractor* must keep daily records of resources (people and equipment employed) and site diaries in respect of work performed on the *site*. A copy of the previous day's daily record must be provided to the *Project Manager* on a daily basis.

#### **2.2.6 Drawings Format and Layout**

Google photos

### **Health and safety risk management**

Reference is made to Part C3 which contains Eskom's Minimum Requirements for Health and Safety. SHE Specification (202-7883) and applicable procedures, policies, guidelines, and standards are provided under Part C3- Eskom Health and Safety Management.

The *Contractor* shall comply with the Occupational Health and Safety Act (OHS Act No 85 of 1995) and Regulations. Furthermore, the *Contractor* shall comply with any additional current statutory requirements of any relevant Government Departments regarding health and safety and environmental health.

Only the latest version/ revision of the applicable legislation, acts and regulations shall be deemed to be accepted at the Ingula Pumped Storage Scheme. Not limited to the following below legislation, acts and regulations are complied with:

- 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)
- 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
- Committee of Land Transport Officials (COLTO)
- SACPCMP Act no. 48 of 2000
- Radiation Protection Act

The *Contractor* shall establish and enforce rules to ensure 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 enforce 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 is required to provide health and safety officer full-time that will ensure compliance and enforce the legal and other requirements applicable to their activities.

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 shall be done prior to them being allowed or given access to start work on site.

The *Contractor* is required to compile a SHE File to comply with the *Employer's* specification, which includes but not limited to the following:

- Safety, Health, and Environmental Plan (SHE Plan)
- SHE organization within the Company-Responsibility & Accountability
- OHS Incident management Procedure (32-95)
- Planning of conduct of work activities including planning for changes and emergency work (Operational Plan)
- Management of PPE- Personal Protective Equipment (Procedure with the matrix)
- Emergency planning and fire risk management
- Vehicle and driver behaviour safety (Competency, Traffic Management, etc.)
- Sub-Contractor or supplier selection and management
- Design and specifications (Drawings)
- Key personnel competency, training, appointments
- Communication and awareness Plan
- Management commitment and visible felt leadership (32-407)
- 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 used for the risk assessment must be provided together with the BRA.)
- Valid Letter of Good Standing (COIDA or equivalent)
- SHE policy signed by CEO/ MD- Comply to OHS Act Section 7 or OHSAS 18001
- Occupational hygiene and health risk assessment
- Medical surveillance

## Environmental constraints and management

The environmental mitigation requirements are recorded in the Construction Environmental Management Plan (CEMP) revision 6 of May 2013 and the Ingula Water Use Licence No: 11/V12B/ABGAFIJC/10497. The *Contractor* shall acquaint himself fully with the contents of the relevant environmental compliance obligations to ensure that the *Contractor* is fully aware of their requirements and implications on the works. The *Contractor's* rates tendered shall cover all costs that will be incurred to comply with all requirements of the environmental requirements. Special attention is drawn inter alia to the following aspects:

Site demarcation: The *Contractor* shall demarcate his camp site, be restricted to that specific area and take full responsibility to restore the area to its original condition before the contract commenced. For this contract, the *Contractor* will be provided with limited office space only at the Eskom Group Capital precinct.

Waste management: The *Contractor* shall dispose of all waste off-site at a licensed waste disposal facility and submit proof to Eskom.

Sanitation: The *Contractor* shall provide an appropriate enclosed temporary sanitation facility (not a bucket system).

Dust control: The *Contractor* shall be responsible to apply effective dust control measures.

Re-vegetation: The *Contractor* shall be responsible to rehabilitate and re-vegetate areas impacted by construction activities.

Fire prevention: It shall be the responsibility of the *Contractor* to prevent veld fires at all times during the contract.

Storm water management: The *Contractor* shall be responsible to implement effective control measures to prevent siltation and erosion of the nearby streams.

The *Contractor* shall take full responsibility for protecting the natural environment and eliminating or minimising the negative impacts of construction on the environment during construction. Nothing specified herein shall relieve the *Contractor* of any obligations or responsibilities in this regard.

The *Contractor* shall implement an Environmental Policy, in line with relevant various compliance obligations, statutory regulations, and Eskom processes the Construction Environmental Management Plan (CEMP), Ref: Annexures (3.4.2) and the Works Information. The Environmental management plan and/or mandatory method statements shall be submitted to the Project Manager within 14 days after the awarding of the contract. Upon the Project Manager's acceptance, the Contractor shall immediately implement the policy and any amendments and keep it in operation for the duration of the contract.

The *Contractor* shall keep the Environmental management plan updated in accordance with his Quality Management Procedures and make amendments as required by the *Project Manager* and the circumstances prevailing at the time. The *Contractor* shall immediately supply the *Project Manager* with a copy of an updated Environmental management plan which shall clearly indicate the revisions undertaken.

The *Contractor* shall conduct his activities so as to cause the least possible disturbance and adverse impact to the existing amenities, whether natural or man-made, in accordance with all the currently applicable statutory requirements. Special care shall be taken by the *Contractor* to prevent irreversible damage to the environment. Disturbance or disruption of the daily lives of local communities shall be avoided.

The *Contractor's* responsibility in terms of water use shall be as prescribed in the latest Ingula Water Use Licence No: 11/V128/ABGAFIJC/10497

The *Contractor* shall take adequate steps to educate all members of his workforce as well as his *Supervisory* staff on the relevant environmental laws and regulations. The *Contractor* shall supplement these steps by prominently displayed notices and signs in strategic locations to remind personnel of environmental concerns.

Environmental Officer supported by the SHEQ Manager shall be responsible for environmental management, in accordance with the Construction Environmental Management Plan and accepted mandatory environmental method statements.

The duties of the Environmental officer are prescribed in the CEMP Rev 6 of May 2013.

### **Environmental normative and informative**

The *Contractor* shall use amongst others; current normative and informative environmental records with the Works Information

- [1] Ingula Ramsar Proclamation Certificate
- [2] Eskom SHEQ Policy
- [3] Group Capital Environmental Specification
- [4] Ingula Record of Decision (RoD)
- [5] Ingula Construction Environmental Management Plan
- [6] Ingula Water Use Licence
- [7] Eskom Environmental Incident Investigation Procedure
- [8] Eskom Waste Management Plan

[9] Area J top/sub soil laboratory results

[10] Ingula Rehabilitation and Implementation Management Strategy

[11] Ingula Management of demolishing rubble work instruction

### Method Statements

The *Contractor* shall submit, before 14 calendar days of commencement of any activity, a Method Statement containing details of all site layouts and environmental protection measures proposed to the *Project Manager* for review and acceptance.

These shall include but not limited to:

- i. Site establishment layout;
- ii. Pollution prevention measures;
- iii. Waste including water management plan;
- iv. Incident and emergency management
- v. Biodiversity Management

In addition, the *Contractor* shall provide detailed method statements on how he intends to carry out the *works*; this shall apply to all, and any part of the *works* as provided in the *conditions of contract*.

### Temporary Services and Facilities

All fuel storage tanks shall be bunded to 110 % of the total storage capacity. Fuel dispensing areas and workshop areas shall be provided with concrete hard standing draining to oil separators. This will also apply to other areas with pollution potential.

Cleaning, maintenance and repairs of vehicles shall be done off site.

### Protection of Rivers, Streams and Watercourses

All rivers, streams and watercourses shall be protected from direct or indirect spills of pollutants such as garbage, sewage, cement, oils, fuels, chemicals, aggregate tailings, silt and wastewater or organic material resulting from the Contractor's activities. In the event of a spill prompt action shall be taken to clear polluted or affected areas.

The Contractor shall not work within river flood lines, streams, water courses and wetlands without the written acceptance of the Project Manager as required for the execution of the work.

Protection of watercourses shall be implemented as per the requirements of the Ingula WUL. No: 11/V128/ABGAFIJC/10497

### Refuse and Waste Control

The management of solid waste on Site shall be strictly controlled and monitored. Only licenced waste disposal landfill sites shall be used.

The quantities of waste generated on Site shall be minimised;

Labelled recycling bins shall be used and waste separated where possible. In addition, a recycled-material collection schedule shall be established and the bins shall be collected regularly;

Eating areas for the construction staff shall be designated and supplied with waste bins.

No on-site burying or dumping or unauthorised burning of any waste materials, vegetation, litter, or refuse shall occur;

Bins provided will be sufficient to store the solid waste produced on a daily basis;

The bins should be emptied at least once a day;

Waste from bins may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof and which the *Project Manager* has accepted;

All solid waste shall be disposed of off site, at a licenced landfill site. The *Contractor* shall supply the *Project Manager* with a certificate of disposal; and

Waste shall be separated into domestic waste, building/construction rubble, scrap metal, oil and grease and hazardous waste and dealt with in the following manner:

### **Protection of Flora**

The removal, damage and disturbance of indigenous flora are prohibited.

At the commencement of the contract, the *Project Manager* will identify to the *Contractor* indigenous flora or any rare or endangered flora that shall be preserved. The *Contractor* shall thereafter demarcate such and undertake all necessary measures to ensure the protection of such flora, including replanting and any special care required in accordance with the CEMP.

The use of herbicides is prohibited unless accepted by the *Project Manager*.

### **Protection of the Fauna**

The *Contractor* shall protect fauna living within the Site and shall ensure that hunting, snaring, poisoning, shooting, nest raiding, or egg-collecting and disturbance does not occur.

The *Contractor* is to ensure that his employees are instructed not to feed wild animals.

The use of pesticides is prohibited unless accepted by the *Project Manager*.

No domestic pets or livestock are permitted on Site.

### **Dust and Vehicle Emission Control**

#### **Dust**

A dust control programme shall be implemented by the *Contractor* to maintain a safe and healthy working environment, minimise nuisance for surrounding residential areas, prevent damage to the natural vegetation of the area and protect topsoil.

The *Contractor* shall act appropriately to minimise the generation of dust resulting from his works operations and activities.

The *Contractor* shall prepare and submit a Dust Control Method Statement to the *Supervisor* within 14 days after the Starting Date. As a minimum, the statement should address the following:

- i. Schedule of spraying water on unpaved roads paying due attention to control of runoff;
- ii. Speed limits for vehicles on unpaved roads and minimisation of haul distances;
- iii. Measures to ensure that material loads are properly covered during transportation;
- iv. Schedule for wheel cleaning and measures to clean up public roads that may be soiled by construction vehicles;
- v. Minimisation of the area disturbed at any one time and protection of exposed soil against wind erosion;
- vi. Reporting mechanism and action plan in case of excessive wind and dust conditions.

The control measures shall also include regular and effective treatment of gravel access roads and working areas, use of dust extractors on drilling equipment or wet drilling, use of personnel protective equipment, etc

#### **Vehicle Emissions**

Vehicles emitting noticeable diesel fumes or smoke will not be permitted to continue working on Site. Vehicle emissions shall be monitored on a regular and on-going basis in order to ensure that vehicles working on Site comply with legislated requirements. The removal and replacement costs of vehicles to comply with this requirement shall be borne by the *Contractor*.

### Noise Pollution

Having due regard for local communities and dwellings, the *Contractor* shall restrict any of his operations which result in undue noise disturbance to those communities and dwellings to the hours of 06:00 to 18:00 on weekdays or otherwise as agreed with the *Project Manager*.

The *Contractor* shall not use sound amplification equipment on Site unless in emergency situations.

The *Contractor* shall ensure that environmental awareness and training for all employees includes the need to minimise noise. The *Contractor* shall provide suitable ear protectors to all his staff and *Others* entering areas with high noise levels. Zones of risk shall be clearly identified with warning signs.

The *Contractor* shall provide and maintain equipment to measure noise levels in accordance with SANS 10083.

The *Project Manager* may from time-to-time instruct the *Contractor* to carry out more frequent testing of noise levels. Furthermore, he may require the *Contractor* to carry out testing in other areas of the Site.

The *Contractor* shall keep records of all noise level measurements for the duration of the contract. These records shall be submitted each month to the *Project Manager*, or on the request of the *Project Manager*.

### Relations with Local Communities

The *Contractor* shall liaise with the local Communities through the accepted channels or forums as indicated by the *Project Manager* on matters concerning the impact of his operations on local communities and other matters. Any problems which cannot be resolved by the *Contractor* shall be referred to the *Employer* through the *Project Manager*. A senior member of the *Contractor's* staff shall be required to attend the meetings of the Environmental Management Committee as and when requested.

### Natural Features and Heritage Resources

The *Contractor* shall not deface, paint, damage or mark any natural features (e.g., rock formations) situated in or around the Site for survey or other purposes unless accepted by the *Project Manager*. Any contravention of this Sub-Clause will require the item to be restored/ rehabilitated at the *Contractor's* cost. The *Contractor* shall ensure that should any archaeological finds be made during the construction excavations; the *Contractor* shall inform the *Project Manager* immediately to reach agreement regarding proper procedures to minimise damage and or effect salvage operations of the findings

All heritage resources to be affected by the project shall be treated and managed in accordance with the National Heritage Resources Act 25 of 1999 and the National Monuments Act 28 Of 1969.

- i. Remedial action in the event of non-compliance.
- ii. Implementation and management of environmental protection measures; and
- iii. Reporting of environmental incidents and routine reporting of environmental activities.

No measurement or payment will be made against any items for the rehabilitation of the *Contractor's* working and accommodation areas (including the areas designated for the *Supervisor's* use) or for rehabilitation of areas used for temporary roads. No overhaul will be paid for work within the Site.

### Quality assurance requirements

#### Overview

The fundamental objective of the set of quality requirements stated within this contract is to ensure that the *Contractor* produces goods/products/services that the *Employer* are wholly satisfied with whilst ensuring that work is done right the first time. To achieve this, the *Contractor* shall ensure that three approaches are taken. These are as follows:

Ensuring that the *Contractors* Quality Management System (QMS) is set up and maintained.

Quality Assurance

Quality Control

These are broad areas each with numerous requirements.

The *Contractor* is fully responsible and wholly accountable for Quality of their work. An example of this is that the *Contractor* has its own Quality Controllers how has knowledge and qualification for civil work and quality control backround performing formal inspections/intervention according to the Quality Control Plans full time on site.

The *Contractor* shall comply with all requirements specified in the Eskom standard, 240-10565800 "Supplier Quality Management: Specification" [1]. It is of utmost importance that this standard be complied with.

### **Codes, standards and documents to be complied with:**

The Contractor shall comply with the following documents as well as all documents referenced therein:

- [1] 240-105658000 "Supplier Quality Management: Specification" (QM 58)
- [2] ISO9001:2015 "Quality Management Systems – Requirements" (Take note that the level of compliance to this standard are determined by [1] above and section 1.3 below)
- [3] ISO10006:2003 "Quality Management Systems – Guidelines for Quality Management in Projects"
- [4] 240-81256435 "Coal & Clean Technology Portfolio NC Process"
- [5] 240-134232676 "Data book Review and Final Submission Process"
- [6] ISO 10005 – Quality Management – Guidelines for Quality Plan
- [7] 240-106628253 "Standard for Welding Requirements on Eskom Plant" (if applicable)
- [8] 240-83539994 "Standard for Non-Destructive Testing (NDT) on Eskom Plant" (if applicable)
- [9] Pressure Equipment Regulations (PER) (if applicable)
- [10] SANS 347 "Categorization and conformity assessment criteria for all pressure equipment" (if applicable)

### **Quality Management System Requirements**

The supplier shall submit objective evidence of a developed QMS that complies with ISO 9001 (or the latest applicable revision). The Contractor shall comply with the requirements of 240-105658000 "Supplier Quality Management: Specification". Compliance to Category 3 requirements is mandatory. The following documents (approved/signed copies) shall be submitted:

- a) Quality management system manual or a document that have defines and describes the QMS and its scope
- b) Quality Policy
- c) Quality Objectives
- d) Control of documented information
- e) Records required by ISO 9001 standard (List of Records)
- f) Internal audit procedure
- g) Control of nonconformity outputs
- h) Nonconformity and Corrective action procedure
- i) Documented information for Control of Externally Provided Processes, Products and Services Processes, Products and Services
- j) Information for roles, responsibilities and authorities

The Quality Management System shall drive the *Contractor's* business management processes to ensure that all of the *Employers* requirements are fully met on a consistent basis.

The *Contractor* shall comply with all requirements specified in section 3.1 of the Supplier Quality Management Specification.

The *Employer* has the right to conduct formal audits on any or all parts of the *Contractor's* Quality Management System as well as any documentation, materials, or equipment associated with the work, at any time and at any project work location.

The *Employer* also has the right to carry out assessments and audits on the *Contractor's* sub-contractors at planned intervals.

In the event that the *Employer* is dissatisfied with the *Contractor's* work for any reason, the *Employer* has the right to conduct additional audits of the *Contractor*.

The *Contractor* shall address all audit findings to the satisfaction of the *Employer* within a time frame acceptable to the *Employer*

### **Quality Assurance Requirements**

The *Contractor* shall ensure that Quality Assurance is performed at all levels and phases of work carried out for the *Employer*.

The *Contractor* shall use processes to ensure that quality is built into their products/services i.e. its business processes are organized such that quality is built into the process of producing goods and rendering services. The *Contractor* shall work according to processes.

The *Contractor* shall ensure that it can be relied on to deliver quality goods and services without the need for the *Employer* to have to inspect all the time.

The *Contractor* shall provide a proposed Quality Table of Payments (Quality Payment Schedule) showing the relationships between Bill of Quantities/Activity Schedule Items, Client Acknowledged Programme Items, Inspection & Test Plans/Quality Control Plans (ITPs/QCPs), Sign off by the *Employer's* Quality department and proposed Payment (Proforma Invoices) which will attest to the works having been done to required quality. This table shall be reviewed, *Employer* comments addressed by the *Contractor* and approved by the *Employer* within 30 days of contract award.

The *Contractor* shall keep the Quality Table of Payments (Quality Payment Schedule) updated with progressive *Employer* sign-off (as the work is done and payments applications are submitted). This means that as the *Contractor* completes an activity and has the related ITP/QCP signed by the *Employer*, the *Contractor* shall bring the Quality Table of Payments to the *Employer's* Quality representative to sign off for that activity.

The updated Quality Table of Payments shall accompany all payment applications (proforma invoices). The *Contractor* shall attach the signed (or partially signed if applicable) ITPs/QCPs to the payment application. Payment will only be made if the ITPs/QCPs are signed by the *Employer*.

### **Quality Control Requirements**

Quality Control is a product-oriented set of activities for ensuring quality in products/services. These activities focus on inspection and identifying defects before these reach the *Employer*.

The *Contractor* shall ensure that Quality Control is performed at all levels and phases of work carried out for the *Employer*.

The *Contractor* shall comply with all requirements specified in section 3.4 of the Supplier Quality Management Specification [1].

The *Contractor* shall complete Quality Control Plans (QCPs) and Inspections and Test Plans (ITPs) (at a check sheet level) before contract award. These shall be reviewed, and *Employer* comments addressed (by the *Contractor*) and signed off by the *Employer* within 30 days after contract award.

The QCPs and ITPs must include those for sub-contractor work.

The QCPs and ITPs shall be reviewed and signed off by the *Contractors* Engineering, Construction and Quality personnel. There shall be three review and sign off sections. These are at pre-work, during work (interventions) and post work (final sign off).

The QCPs and ITPs show each activity/requirement of the Works Information.

One of the earliest/first activities on the QCP/ITP shall be "Approval of the QCP/ITP" and this is a hold point hence if it is not signed by the *Employer* then work cannot continue.

The *Contractor* shall submit a QCP/ITP register which includes columns for Programme item, Related QCP/ITP, Date of Submission and Completion/Sign-off Date of QCP/ITP.

All QCPs/ITPs may be reviewed and modified by the *Employer* at any time.

The project programme shall show all quality intervention points such as witness, hold, verification, surveillances and review points. These shall be updated if changes are made to the programme.

The *Contractor* shall make use of their own Inspection, test and acceptance procedure to request the *Employers* personnel to perform inspections. The *Contractor* shall ensure that all inspections have "Passed" by their in-house quality control representative prior to requesting the *Employers* personnel to perform any inspection.

In the event of poor quality, re-work or incidents where products inspected by the *Employer* fail to meet requirements, the *Contractor* shall receive a Non-conformance (NCR) if deemed so by the *Employer*. The *Contractor* shall be liable for the *Employers* costs of re-inspection as well as be liable to pay penalties as specified in this contract.

### Quality Plan

The *Contractor* shall submit a Quality Plan within 30 days of contract award for acceptance by the *Employer*.

The *Contractor* shall comply with all requirements specified in sections 3.2, 3.3 and 3.4 of the Supplier Quality Management Specification.

The *Contractor* shall submit a detailed contract organogram showing the quality personnel to be used in the Contract. The *Contractor* shall provide CVs of the quality management employees who will be responsible for quality on site.

Commissioning may only commence once the H2 data book(s) has been accepted by the *Employer* if applicable.

The *Contractor* shall ensure that all data book(s) have been submitted to and accepted by the *Employer* as per the *Employers* requirements and meet the time frames specified by the *Employer*.

Failure of the *Contractor* to submit data book(s) and obtain the *Employer's* approval at 100 % work completion shall affect payment.

Failure of the *Contractor* to submit H1 data book(s) and obtain the *Employer's* approval prior to construction will affect payment.

Failure of the *Contractor* to submit H2 data book(s) and obtain the *Employer's* approval prior to Commissioning will affect payment.

Failure of the *Contractor* to submit H3 data book(s) and obtain the *Employer's* approval prior to takeover will affect payment.

Failure of the *Contractor* to submit all data book(s) and obtain the *Employer's* approval will prevent take-over of the Works by the Employer.

The *Employer* has 21 days to review a data book from the time the *Contractor* transmits the data book to the document controller until feedback is received.

The *Contractor* shall specify the review status and discipline on the transmittal when transmitting data books to the Employers Doc control.

### Quality Documentation Requirements

For all products and services, the *Contractor* shall submit the following quality documents as a minimum, no work shall start prior to the acceptance to the below documents by the *Employer* :

- a) Data book Index for acceptance by the *Employer*
- b) List of data books
- c) Method statement (describing how work will be executed)
- d) Equipment list
- e) Drawings
- f) ITP/QCP Register
- g) ITPs, QCPs and check sheets
- h) Inspection notifications accompanied by their inspection report
- i) Updated onsite, off site and offshore inspection schedules
- j) Inspection and or factory acceptance test dates as applicable
- k) Inspections completed / outstanding.
- l) Inspection and test reports template where applicable
- m) Weekly and monthly contract quality progress report template
- m) Materials used
- n) Material certificates
- o) Data sheets
- p) Equipment list
- q) Welding documents (if applicable) include Welding Procedure Specification (WPS), Procedure Qualification Record (PQR), welder qualifications, Welding Procedure Qualification Record (WPQR), welding consumables and all other documents required by relevant welding standards.
- r) Quality Plan (as earlier described)
- s) Non-conformance and Defects registers and reports.

The *Contractor* shall submit a final draft of their Quality file within 30 days of contract award. The *Contractor* shall maintain this file throughout the duration of the contract. This file shall contain all Quality documentation and records.

The *Contractor* shall submit data books for all work for acceptance by the *Employer* if applicable. These are defined as follows:

- H1 – Fabrication
- H2 – Construction
- H3 – Commissioning

The *Contractor* shall submit data books in accordance with the *Employers* requirements. The *Employers* requirements vary depending on the type of component or system hence the *Contractor* shall modify the data books to meet the requirements of the *Employer*.

The *Contractor* shall submit 2 hard copies of data books and one software copy (on a DVD/CD).

Components may only be released for delivery to site once the H1 data book(s) has been accepted by the *Employer* if applicable.

Commissioning may only commence once the H2 data book(s) has been accepted by the *Employer* if applicable.

The *Contractor* shall ensure that all data book(s) have been submitted to and accepted by the *Employer* as per the *Employers* requirements and meet the time frames specified by the *Employer*.

Failure of the *Contractor* to submit data book(s) and obtain the *Employer's* approval at 100 % work completion shall affect payment.

Failure of the *Contractor* to submit H1 data book(s) and obtain the *Employer's* approval prior to construction will affect payment.

Failure of the *Contractor* to submit H2 data book(s) and obtain the *Employer's* approval prior to Commissioning will affect payment.

Failure of the *Contractor* to submit H3 data book(s) and obtain the *Employer's* approval prior to takeover will affect payment.

Failure of the *Contractor* to submit all data book(s) and obtain the *Employer's* approval will prevent take-over of the Works by the Employer.

The *Employer* has 21 days to review a data book from the time the *Contractor* transmits the data book to the document controller until feedback is received.

The *Contractor* shall specify the review status and discipline on the transmittal when transmitting data books to the Employers Documentation control.

### **Contract execution**

Correspondence shall be directed to the *Employer*, and periodic quality review meetings shall be convened by *Employer* with the *Contractor*.

The mandatory quality review meetings are to be convened by the nominated project quality manager or his/her representative for the *Contractor*.

Quality Management employee's responsibilities shall include but are not limited to the following:

- a) Implementation of the QMS on site
- b) Administration of QA/QC systems on site
- c) Verification of approval status of Subcontractor's QCP and procedures
- d) On-and -offsite inspections
- e) Co-ordination, inspection and verification of the *Employer's* intervention points
- f) Review of *Contractor* testing and inspection documents (procedures, test results)
- g) Weekly and monthly progress reporting on quality performance

The *Contractor* shall comply with section 5 of the Supplier Quality Management Specification.

Monthly quality performance and management reports shall be prepared by the *Contractor* during contract execution. The content of these reports shall be agreed by the *Employer* when submitted to the *Employer* on a monthly basis.

### **Contract Reporting**

The *Contractor* shall submit a monthly quality report, on the last working day of the month. The report includes but not limited to the following:

- a) A register of NCRs and defects
- b) Updated QCP / ITP register
- c) Activities signed accepted on QCP
- d) Updated method statement register
- e) QA monthly report summary
- f) Planned and completed local inspection dates
- g) Completed and outstanding Inspections
- h) Audit findings report

### **Preservation, Shipping and Transportation to be addressed.**

The *Contractor* is responsible for ensuring that all products are preserved in their appropriate manner as described in their specifications or in Eskom preservation, shipping and transportation procedures as applicable.

The *Contractor* shall submit the preservation, shipping and transportation procedures to the *Employer* for review and acceptance.

The *Employer* may choose to witness the packaging, loading and offloading of the products depending on their criticality, this will be indicated in the intervention points on the QCP / ITP document.

The *Contractor* shall ensure that all storage requirements for products are properly implemented to preserve the products against adverse conditions, deterioration, damages, etc. Storage and preservation procedures for the different products must be submitted to the *Employer* for review and acceptance.

The *Employer* may request to inspect the stored products at any given point during the storage period of the product.

Requirements for preservation, shipping and transportation are addressed in 240-105658000 [1].

### **General Quality Requirements**

The *Contractor* shall comply with all requirements specified in section 6 of the Supplier Quality Management Specification.

All documents shall be approved by the *Employer*. If the *Employer* is dissatisfied with a document, then it is the *Contractors* responsibility to ensure that the *Employers* requirements are met.

All planning Quality Assurance and Quality Control documents shall be submitted for acceptance by the *Employer* before any work starts.

The *Contractor* shall make use of qualified and experienced Quality Controllers to ensure that products/services are of a high quality prior to inspection by the *Employers* quality representative(s).

The *Contractor* shall ensure that all defects and NCRs are addressed correctly and timeously.

Defects and NCRs shall be closed within a time frame or period specified or accepted by the *Employer*.

When NCRs and Defects notifications are issued, the Contractor shall acknowledge receipt within (5) working days and include the Root cause(s), Correction(s) and Corrective action(s) and proposed implementation dates to the *Employer* as per the contract response period.

The corrective actions will include the implementation and completion dates. Progress on all NCRs and Defect notifications issued to the *Contractor* must be reported to the *Employer* on weekly basis.

The Contractor's quality manager keeps a register of all NCRs and Defect notifications issued.

Deviations from the Contract are treated as a non-conformance.

Records of NCRs and Defect notifications are kept and form part of the data book records.

During the contract execution phase, the *Contractor* will be monitored by the *Employer* for performance on quality related aspects. The monitoring will be in the form of audits and assessments. The *Employers* quality department will be involved in every assessment to ensure that all NCRs and Defects raised are closed or the necessary penalties are implemented as stipulated contractually.

The *Contractor* is accountable for the quality of the output and liable for any failures.

The interventions points include all witness, hold, verification, surveillances and review points required by the Employer. The Contractor's failure to allow the intervention points will constitute a non-conformance. The

*Employer* has the right to approve or reject intervention points and may add or remove these points as desired.

The *Contractor* shall only be paid subject to meeting the *Employer* approval of all quality requirements and three copies of the data books accepted by the *Employer*.

The *Contractor* shall provide all information, material and records required to comply with the Eskom Quality Management System and such further information, material and records as may be requested by the *Employer* from time to time.

The *Contractor* shall ensure that no inspections are missed and all schedules are observed.

The *Contractor* shall comply with all relevant Eskom governance documents (codes, standards etc.) whether specified in this contract or not.

The *Contractor* shall make use of an Authorised Certification Authority such as SABS to certify *Contractor* QMS if applicable.

The *Contractor* shall make use of Recognised International Accreditations such as SANAS which accredits the Authorised Certification Authority if applicable.

The quality requirements shall be met by the contractor and all sub-contractors.

The *Contractor* shall ensure that all measuring and test equipment is calibrated at all times and proof thereof must be readily available.

Penalties to be communicated to the contract manager to be included in contract terms (contract data and agreements)

- a) To ensure reduction of non-conformances, the *Employer* will implement a penalty to the value of R50 000.00 for every five (5) NCRs issued during the contract period.
- b) To ensure reduction of defects, the *Employer* will implement a penalty to the value of R50 000.00 for every five (5) defects issued during the contract period.
- c) In the event of poor quality, re-work or incidents where products inspected by the *Employer* fail to meet requirements, the *Contractor* shall receive a Non-conformance (NCR) if deemed so by the *Employer*. The *Contractor* shall be liable for the *Employers* costs of re-inspection as well as be liable to pay penalties as specified in this contract.
- d) Damages as a result of the *Contractor's* failure to comply with the inspection requirements as specified in this section will be borne by the *Contractor* and no compensation event or variation order will arise out of this.
- e) The *Contractor* shall only be paid subject to meeting and Employer approval of all quality.

## **Programming constraints**

### **2.6.1 General**

The *Contractor's* work programme shall be submitted to the *Project Manager* in terms of Clauses 31.2 and 31.3 of the ECC, and Part C1.2 Contract Data – Part One. The *Contractor* submits a level 4 programme that incorporates all work to be performed including project key dates. The *Contractor's* work programme shall be submitted in Primavera P6 Schedule (XER) or MS Project (mpp) format for ease of transfer and presentation. The *Contractor* submits a single integrated programme that incorporates the programmes of all of his Subcontractors, Suppliers, etc. The interface points between his different Subcontractors as well as the interface points between the individual Subcontractor's and the *Contractor* are to be clearly identified.

The *Contractor* shall be responsible to manage all interfaces between him and other contractors, who are expected to work within the same vicinity of the *works*. No extension of time shall be granted for any delays

as a result of the *Contractor* not timeously managing interfaces, in particular, the work which is in close proximity and parallel to the *works*.

In order for the *Employer* to fulfil his internal requirements for reporting and performance measurement, the *Contractor* is required to comply with the *Employer's* standard 240-85065548, Project Controls Specification for *Contractor* Integration.

The *Contractor* is to note that, other contractors are working in the same area as the work of this contract. In this regard, the *Contractor* co-ordinates his work with the *Project Manager* to maintain harmonious working conditions on *site*.

No extra payment or claim of any kind on account of providing reasonable access is allowed.

The *Contractor* reports the overall progress and as a minimum requirement, the following is addressed:

*Contractor's* current activities progress and planned finish dates.

*Contractor's* planned start and finish dates for the works

*Contractor's* and *Project Manager's* programme agenda compared for problematic differences.

The progress of any other relevant activities.

To discuss any technical or commercial issues.

## **2.6.2 Computerised Planning and Reporting**

The *Project Manager* does not intend duplicating the *Contractor's* programming and planning, however, portions or high level extractions of the Accepted Programme may be used in the *Employer's* internal master project programme for control purposes.

The *Contractor* submits updated computer files on a monthly basis, or at any other time as required by the *Contractor* or as instructed by the *Project Manager*.

The updated computer file shows the logic and all filters and layouts used in the programme. Primavera P6 software has been adopted by the *Employer* for all planning, progress monitoring and reporting on the Ingula Pump Storage Project.

The *Contractor* obtains this software and applies it for the planning and control of the works in line with the accepted Work Breakdown Structure.

Any changes that are required to be made to the Project/Programme i.e. scope changes, delays and the such, will be recorded through the Eskom change process and documentation, where all parties agree to the changes and sign.

### **1.1.3 Sequencing of the works**

The sequencing of the works needs to take into account the time of year that hydro seeding can be done and all preparation work needs to be completed timeously to meet this constraint. Work activities need to be sequenced to not cause disruption and disturbances to the normal operational activities of the power station and other contractors. The *Contractors* "basis of schedule" needs to provide a detailed narrative in this regard.

## **Additional Programme Requirements**

The *Contractor* uses the Critical Path Method (CPM) technique for programme and planning. The programme shows the actual critical path clearly.

The preparation of the programme contains a programme basis document. This basis document describes the programme and planning methodology, format, project execution philosophy, resource assumptions, qualifications and any other items that may have a substantive impact on the schedule.

The programme layout takes into account the accepted WBS, reflecting the manner in that the works are to be performed and how control data are summarised, reported and monitored. The minimum requirements for the WBS for the Access Roads and Security Building Project are as per the Works Information.

The following levels of programme are to be used for this project for dynamic integrated project control:

Management level programme (Level 1).

Project level programme (Level 2).

Control level programme (Level 3).

Discipline speciality programme (Level 4).

The *Contractor* submits the level 2 programme with the tender documentation. The level 3 programme is to be submitted within one month of contract award.

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

The appointment of key personnel shall be in terms of Clause 24 of the NEC ECC and as a minimum, the *Contractor* shall nominate a Director / Senior Manager (off site), a Contract Manager and a Site Manager, subject to the acceptance of the *Project Manager*, refer Part C1.2 Contract Data– Part Two.

The *Contractor* is also required to submit a preliminary organogram of all key persons including Subcontractor's at tender stage and after contract award.

The organogram submitted at tender stage is required to contain the following persons as a minimum:

Contract Manager

Site Manager

Site Supervisors

SHEQ Manager

Safety and Health Officer

Environmental Officer with a three-year environmental qualification and two years working experience/  
Environmental Management related certificate and two years' experience.

Quality Officer (not mandatory)

### **Invoicing and payment**

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

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

Name and address of the *Contractor* and the *Project Manager*;

The contract number and title;

*Contractor's* VAT registration number;

The *Employer's* VAT registration number 4740101508;

Description of service provided for each item invoiced based on the Price List;

Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

- Description of service provided for each item invoiced based on the Price List.
- Total amount invoiced excluding VAT (15 %), the VAT (15 %) and the invoiced amount including VAT (15 %).
- Invoice Number.
- Purchase Order Number and Line Item Number.
- Where retention/delay damages are applicable, need to be deducted before VAT.
- Where a supplier has claimed incorrectly, they have to cancel the invoice with a credit note referring to incorrect invoice and issue a new invoice.

### **Details on how to submit invoices and additional information**

Ensure that the Eskom order number is clearly indicated on your invoice together with the line number on the order you are billing for.

All Electronic invoices must be sent in PDF format only.

Each PDF file should contain one invoice; or one debit note; or one credit note only as Eskom's SAP (System Application and Products) system does not support more than one PDF being linked into workflow at a time.

Your E-mail may contain more than one PDF file (e.g., 2 invoices on 2 separate PDF files in one e-mail).

For Foreign invoices, suppliers will still be required to physically deliver hard copies of original documents to the respective documentation management centres even though you have e-mailed those invoices

#### Tax Requirement

- i. A PDF file that was created directly from a system meets the definition of original document and is allowed (including saving documents from excel to PDF, word to PDF etc.)
- ii. An Invoice that was printed and then scanned to PDF by the Vendor is not acceptable as this is not an original tax invoice by SARS (South African Revenue Service) definition but a copy.
- iii. The following wording needs to appear on the invoice: "Your invoice is encrypted in order to comply with SARS requirements that invoices and statements sent electronically are tamperproof."

If there is Cost Price Adjustment (CPA) on your invoice, we recommend that you issue a separate invoice for CPA so that if there are any issues on the CPA the rest of the invoice can be paid while resolving the CPA issues.

Introduction of electronic invoicing does not guarantee payment but will ensure visibility of all invoices and ensure that no invoices get lost. If the goods receipt is not done, the invoice will be parked, and the system will automatically send an e-mail to the end user to do the goods receipt. This is also tracked by Eskom through the park invoice report.

Your company can request a park invoice report from the Finance Shared Services (FSS) contact centre, which can then be followed up and corrected. You are welcome to forward the details of invoices corrected to the FSS contact centre.

Email addresses for invoice submission:

Group Capital Kusile & Peaking: [invoicesgrpcapitalKCT@eskom.co.za](mailto:invoicesgrpcapitalKCT@eskom.co.za)

#### Schedule of Actual Costs and Accounts

The *Contractor* shall submit a detailed monthly schedule of his actual costs with all the necessary backup information at the monthly measurement meeting, for review by the *Supervisor*. The various schedule items as detailed in the Schedule of Cost Components, shall be submitted in a spreadsheet format, itemized in terms of People, Equipment, Plant and Materials, charges, and manufacture and fabrication. Schedule items shall be grouped into work area activities as outlined in the bill of quantities, with such work area activity groupings referenced against the bill of quantities item numbering.

Before each successive monthly measurement meeting (i.e. on a weekly basis), the *Contractor* shall submit to the *Supervisor* all current (or cumulative to that assessment date) backup documentation for acceptance. Backup documentation shall include, but not limited to: all calculation sheets, citing each completed task and item in the bill of quantities, drawings, etc. acceptance of completed work payment purposes, including confirmation of attainment of each criteria set out either in the specification or any other document which this contract prescribes.

Following the monthly measurement meeting, the *Contractor* shall present a detailed final schedule (with revisions agreed to at the monthly measurement meeting incorporated), including the necessary backup documentation, to the *Supervisor* for final checking. Once accepted by the *Supervisor*, he will submit it to the *Project Manager*. This will then be used by the *Project Manager* to assess the amount due in terms of Clause 50 of the ECC.

The final format and layout of this monthly schedule as well as the level of detail of backup information required are to be agreed between the *Project Manager* and the *Contractor*.

Clause 52 of the ECC shall apply in terms of accounts to be kept by the *Contractor* to verify the above monthly schedule of actual costs.

#### Records and Returns

This section relates to the preparation and submission of records and returns by the *Contractor*, to be submitted to the *Supervisor* in a form that is acceptable to him.

- At Start Up of the works
- Prior to First Commencement of a Particular Work Activity
- On Completion of a Work Activity or Part Thereof

- Daily
- Weekly
- Monthly
- On Completion of the works

### **Measurement and Payment**

Payment is made on completed activity as per the activity schedule, Part C2.

The *Supervisor* shall measure and monitor the activities in each of the areas and certify work as complete and due for payment.

**No overhaul will be paid for work within the Site.**

Part C1.2 Contract Data – Part One, Clause 5 refers.

### **Contract change management.**

ECC Clause 6 – Compensation Events shall refer.

### **Provision of bonds and guarantees.**

The form in which a bond or guarantee required by the *conditions of contract* 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.

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

The NEC ECC3 Defined Cost shall apply; precisely the Shorter Schedule of Cost Components shall apply as provided thereon.

## **REHABILITATION SPECIFICATION**

### **Land scaping and Revegetation**

#### **Seedbed preparation**

Foreign material (concrete, aggregate, gravel, nails, wire, plastic etc.) shall be removed. The land shall be restored to pre-construction contours and smooth. Slopes shall not exceed a 1:3 and alignment with land formation. At least two (2) months before planting, dolomitic lime plus manure shall be incorporated into top 10cm of soil by light discing or harrowing.

#### **Alien plant species management**

Invader plants shall be eradicated, controlled, and managed. These plants shall be cut and managed as per the relevant compliance obligations. For eucalypt, wattle, the basal stem shall be treated with systematic herbicides. Geminating wattles may be hand-pulled or sprayed with herbicide if shorter than 1.5m.

Appropriate control methods shall be applied for other invader plants ( e.g American bramble, bugweed, etc) The responsible personnel for application of herbicides shall be formally trained with the relevant certificate.

### **Permanent Cover**

Areas which were disturbed by construction activities shall be permanently rehabilitated. These areas are listed on Table 1: areas and activities for landscaping and re-vegetation. The seed mix (Table 2) and appropriate fertiliser shall be utilised for the re-vegetation of these areas.

During the construction phase, there may be a need to rehabilitate or re-vegetate certain areas to assist with erosion control, to limit run-off and to mitigate dust generation. This shall be undertaken on the instruction of the Supervisor. The seed mix (Table 2) and appropriate fertiliser shall be utilised for the re-vegetation of these areas.

### **Preparation of ground cover**

Prior to landscaping and re-vegetation of the site, the *Contractor* shall remove all remnants of building materials, concrete foundations, timber, steel, plastic and other foreign debris from the site.

### **Shaping**

All slopes which do not form part of the Permanent works shall be graded so that no slope exceeds a maximum gradient of 1:3 or as otherwise directed by the *Supervisor*. Contour drains shall be provided to control erosion where required by the Supervisor.

Excavation and fills for Temporary Works and spoil dumps shall be formed in such a manner that the final profile shall appear as a natural extension to the adjacent, undisturbed ground profiles.

### **Trimming**

Trimming shall consist of bringing the existing or previously shaped ground to a smoothly flowing surface with the final levels generally following the original surface as directed by the *Supervisor*. Both mechanical and hand trimming shall be undertaken.

### **Scarifying**

Prior to the application of topsoil, the ground surface shall be scarified by a mechanical ripper to a depth of approximately 150 mm to breakdown soil clods.

### **Ripping**

Compacted soil, which has become too hard to scarify, shall be ripped with a mechanical ripper to a depth of 200 mm. No section of ground shall remain undisturbed after ripping. In limited areas where use of mechanical ripping is not practical the compacted soil shall be loosened by manual methods using forks and picks to the satisfaction of the Supervisor

### **Topsoiling**

Before placing topsoil, the *Contractor* shall remove all visible weeds from the placement area and from the topsoil. The stockpiled topsoil shall generally be spread evenly over the prepared surface to a depth of 75 - 150 mm on flat ground or to a minimum of 75 mm on slopes of 1:3 or steeper.

### **Soil Stabilization**

On all landscaped and topsoiled areas straw shall be utilised as a binding material to stabilise the soil during re-vegetation and rehabilitation of the site. Straw shall consist of natural seed-free, dried fibres of hay, chaff

or tall grass clippings (from the surrounding environment) of various lengths between 50 mm and 400 mm, delivered to Site in standard rectangular bales and shall be applied evenly by hand at a rate of 1 bale per 28 m<sup>2</sup> over the area to be re-vegetated. It shall then immediately be rotated or manually mixed into the upper 280 mm layer of soil.

### **Fertilizer**

Prior to seeding the Contractor shall apply dolomitic lime at a rate of 1 tonne per hectare to the area to be seeded and incorporate into the top 280mm of soil by light discing or harrowing.

Fertiliser shall be added to the soil on seeding or planting. For the fertilisation of areas requiring temporary cover: P at 80 kg/ha; K at 280 kg/ha including Zn in the mix.

LAN, at a rate of 200 kg/ha, should be applied upon germination of grass.

For areas requiring permanent cover, the rate of application shall be as directed by the Supervisor after the Contractor has had the opportunity of testing the requirements of the soil material in which the vegetation is to be planted. The Contractor shall arrange to test the top 75 mm of prepared surface at each working area to determine the amount and type of fertiliser required for establishing proper growth conditions for the vegetation. The sequence of fertiliser application will be dependent on the fertiliser mix and application rates identified during the soil analysis.

Soils only need to be tested as part of after care. First apply fertiliser as prescribed- only test soils to identify and remedy shortfalls. In this regard struggling areas as well as adhoc spot samples should be sent to the laboratory for testing.

### **Hand-Seeding and Grass Establishment**

Seeding shall only take place between mid-October and mid-March.

Prior to seeding the soil shall be prepared as follows:

- Apply fertiliser at the rate of P at 80 kg/ha; K at 280 kg/ha including Zn in the mix.
- Incorporate into the soil by discing or harrowing and roll using a Cambridge roller.
- Form furrows 80 mm deep in rows approximately 150 mm apart running parallel to the contour of the finished surface.

The seed mixture as specified shall be mixed with two parts per volume of clean dry plaster sand, then divided in half and applied evenly in two successive applications, one after the other, by means of an accepted hand-seeding machine (known colloquially as a "tefsaaier"). On completion of the seeding the surface shall be rolled again using a Cambridge roller.

When the seed has germinated apply fertiliser LAN at a rate of 200 kg/ha.

When the grass comes into flower mow or slash the grass, remove cut grass and top dress with fertiliser LAN at 200 kg/ha. Repeat the cutting whenever the grass comes into flower but do not apply any fertiliser between mid-March and mid-October.

After every rainstorm the *Contractor* shall inspect and repair washaways and failed grass establishment by repeating the seeding process.

Any alien species which become established shall be removed and the area affected shall be re-seeded.

### **Hydro-Seeding**

Hydro-seeding, if accepted by the *Supervisor*, shall be carried out using an accepted hydro-seeding machine. The hydro-seeding mix shall be applied to the areas to be re-vegetated at a rate of not less than 20 kilolitres of water per hectare.

The hydro-seeder shall be capable of pumping the specified seed mix, fertilizer and anti-erosion compound (mixed in water) at the specified rates over the areas to be seeded. The slurry distribution lines shall be large enough to prevent stoppage, and the discharge line shall be equipped with a set of hydraulic spray nozzles suitable for the even distribution of the slurry on the various slopes to be seeded.

Hydro-seeding machines shall be thoroughly cleaned after each operation and before different seed mixes of different origins are introduced into it. The mixture shall be kept uniform during the seeding operation by means of a power-driven agitator.

No mixing of seed or hydro-seeding mixes shall be done without the acceptance of the Supervisor. Hydro-seeding shall only be carried out during the period September to March (after the first good rains) and the Supervisor shall be notified when seeding will take place.

### **After Care**

The *Contractor* shall carry out after care of the areas seeded as follows:

- In first winter after establishment sample soils and submit to soil laboratory for fertility analysis
- Remedy fertility shortfalls (minima are Mg 280mg/kg, P15mg/kg. K 120 mg/kg, Zn 1.5 mg/kg, and acid saturation must not exceed 40%) in mid-October by application of required fertiliser and top dress with LAN 200kg/ha
- When the grass comes into flower mow or slash the grass, remove cut grass and top dress with fertiliser LAN at 200 kg/ha.
- Do not apply any fertiliser between mid-March and mid-October.
- Repair all rainstorm damage and re-establish grass where necessary.
- Continue aftercare until grass cover is of an acceptable standard (minimum 75%).

### **Maintenance of Vegetated Areas**

#### **Responsibility for Establishing an Acceptable Cover**

An acceptable cover shall mean that not less than 75% of the re-vegetated area shall be covered with vegetation of the seeded species and that there shall be no bare patches of more than 500 mm in maximum dimension.

Notwithstanding the fact that the method of planting, the type of seed, grass or plant used, the rate of application of seed or planting density as specified the Contractor shall be solely responsible for establishing and maintaining an acceptable plant cover and for the cost of replanting or re-seeding where acceptable cover is not obtained or maintained.

The establishment of an acceptable cover shall include maintaining the surface to the required slopes and levels without erosion or sedimentation, watering, weeding, fertilising, disease and insect pest control and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of the plant material on site.

The *Contractor's* liability with regard to the maintenance of the vegetation shall commence when an acceptable cover as defined above has been established over the whole of the area re-vegetated and shall be not less than one year. In all cases the cover at the end of the Defects Correction Period shall not be less than acceptable cover as defined in above.

#### **3.2.2 Watering, Weeding and Replanting**

All re-vegetated areas shall be adequately watered at frequent and regular intervals to ensure proper germination of seeds and growth until the vegetation has established an acceptable cover and thereafter as required to sustain growth. The amount and frequency of watering shall be agreed with the *Supervisor*.

As a guideline the *Contractor* shall, In the absence of adequate rainfall, water all seeded areas once weekly during the first month, and once every two weeks during the second month. Rainfall of less than 60 mm in the first month and less than 45 mm in the second month is regarded as inadequate water supply. Watering should be carried out from a tanker, using a fine nozzle spray to avoid erosion and disturbance of the vegetation. The Contractor shall supply all water required for irrigation during the establishment period and shall provide all plant necessary for the operation.

The re-vegetated areas shall be kept free of weeds. Weeds shall be controlled by means of pulling, or any other accepted means.

Any bare patches where the vegetation has not taken, or where it has been damaged or has dried up, shall be re-cultivated and re-vegetated without any additional payment.

### **3.2.3 Traffic on Re-vegetated Areas**

The *Contractor* shall not undertake any re-vegetation of areas requiring permanent cover until all operations that may require construction equipment to pass over those areas has been completed. No construction equipment, trucks or water carts shall be allowed on areas that have been re-vegetated and only equipment required for the preparation of areas, application of fertilizer and spreading of topsoil will be allowed to operate on these areas.

### **3.2.4 Erosion Control**

Any runnels or erosion channels developing during the re-vegetation period or during the period for which the Contractor is liable shall be backfilled and consolidated and the areas restored to a proper stable condition. The Contractor shall not allow erosion to develop on a large scale before effecting repairs and all erosion damage shall be repaired as soon as possible and, in any case, not later than three months before the termination of the Defects Correction Period. All topsoil or other material accumulated inside drains shall be removed at the same time. Topsoil washed away shall be replaced.

The *Contractor* shall ensure that erosion of rehabilitated areas is not caused by pedestrian access.

## **Procedure for submission and acceptance**

The *Contractor* shall develop and submit mandatory documents, method statement, and any related documents for acceptance by the *Employer* prior to commencement of works.

General arrangement and layout drawings, and (where appropriate) calculations and key diagrams must be examined and accepted in accordance with the basic concept of the project and meet the requirements of the Works Information.

## **Procurement and handling of seeds**

### **Procurement of seed**

Seed shall be purchased from a reputable supplier and conform to specifications in rehabilitation methodology. All seed procured from seed suppliers shall be fresh (not more than one season old), true to species, of known origin, dried and packed as specified herein and conform with all legal requirements for seed. All seed shall be germination tested by a government accepted laboratory, and copies of test certificates submitted to the Supervisor. The seed mixture shall not be delivered to Site pre-mixed, but seed from sealed bags shall be mixed on Site in the required proportions.

### **Delivery of seed**

Seed shall be delivered to the Contractor's site storage facility as and when ready, but shall only be delivered in consignments of 50 kg or more. All the seed bags, full or partly full shall conform to SC 28.4.1 at time of delivery.

### **Storage of seed**

Seed shall be stored in a cool, dry and rodent free facility. The Contractor remains fully responsible for the seed until sowing and shall insure the seed while stored for the full replacement value.

### **Replacement of seed**

Should, for reasons beyond the control of the Contractor, the procurement of a specific seed species not be possible, replacement with seed from a similar species may be requested. Such replacement shall only occur with the written acceptance of the Supervisor. Rates tendered for the original species shall remain applicable. Should the Supervisor not agree to replacement of species, the unobtainable species should be omitted from the seed mix and no compensation for such seed will be applicable.

### **Anti-Erosion Compounds**

Anti-erosion compounds shall consist of an organic or plastic material in suspension, which can be sprayed on the soil to bind and protect it against erosion, such as "hydropam" or a similar compound accepted by the Supervisor. Where directed by the Supervisor these anti-erosion compounds shall be used at a rate of 150 kg/ ha.

### **Topsoil**

Topsoil shall not be compacted in any way, especially by vehicles riding over it. Where it is essential to drive a vehicle over the topsoil (once it has been respread), as accepted by the Supervisor, the contact pressure shall not be greater than 1500kg/m<sup>2</sup>.

### **Storage capacity for material**

The storage capacity provided, and amount of material stored (of whatever sort required for the completion of the works) shall be sufficient to ensure that no interruption to the progress of the work is occasioned by lack of materials.

## **PEOPLE**

### **Minimum requirements of people employed on the Site.**

The *Contractor* shall submit an organogram at tender stage which is required to contain the following persons as a minimum for acceptance by the *Employer*:

Contract Manager.

Site Manager.

Site Supervisor

SHEQ Manager.

Safety and Health Officer.

Environmental Officer with a three-year environmental qualification and two years working experience/  
Environmental Management related certificate and two years' experience. Additionally trained personnel for firefighting and handling of hazardous substances.

Quality Officer (not mandatory)

### **BBBEE and preferencing scheme**

The *Contractor* shall comply with the *Employer's* Black Economic Empowerment Policy; refer Part C1.2 Contract Data – Part One.

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

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

Local general labour x 6

Local skilled labour x 2

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

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

## Materials

Proof of compliance with materials specifications and samples of materials shall be required.

All materials which are procured for the *works* shall be subject to the provision of a proof of payment by the *Contractor* at least 30 days after delivery to *site* ownership shall then transfer to the *Employer* once valued, accepted and paid for by the *Employer*.

The *Contractor* shall note that the *Employer* may issue free top and sub soil material for the sole use in this contract.

Materials required for this works are not limited to:

Seeds

Fertilizers

Hay straw

Harrow

Cambridge roller

Chip brush

Signage

### Materials provided “free issue” by the *Employer*.

Topsoil, where available,

Electricity (only at Eskom GCD office precinct)

Water (Potable water only at Eskom GCD office precinct, construction water from Bramhoek Dam)

### *Contractor's* procurement of Materials

#### Materials

#### Fertiliser

In all areas to be rehabilitated the following rates of fertiliser application shall apply: P at 80 kg/ha; K at 280 kg/ha including Zn in the mix.

For areas requiring permanent cover, the soil must be sampled and tested by a commercial laboratory to determine the appropriate fertiliser mixture. (Annexure I). The *Employer* has conducted limited tests and will make the results available to the *Contractor*.

The fertiliser shall be uniform in composition, free-flowing and suitable for application with accepted equipment. It shall be delivered to the site in bags or other convenient containers, each of which shall be fully labelled and bear a clear indication of the contents, the trade name or trademark, the producer's name and a warranty with regard to the contents by the producer.

The Contractor shall provide the Supervisor with copies of invoices for all fertilisers used on the Project. Invoices for fertilisers shall show the grade furnished.

## Seed

The seed mix for the vegetation of areas requiring permanent cover is shown in Table 1.

The *Contractor* shall provide the application rates to achieve the specified growth in compliance with the Works for acceptance by the *Supervisor*.

**TABLE 1 : SEED MIX**

Species	Application	Rate (kg/ha)
Chloras Gayana (Rhodes)		[.]
Eragrostis tef		[.]
<b>Total</b>		[.]

## CONSTRUCTION

### Temporary works, Site services & construction constraints

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

The *Contractor* and his personnel shall be subject to all rules and regulations governing the entry requirements to the Power Station. All personnel shall provide a police security clearance certificate, undergo induction and an entrance medical not older than 30 days. The *Contractor* shall comply with Eskom's life-saving rules and shall be subjected to entrance and exit security searches, compulsory testing for alcohol and drugs.

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

For all intents and purpose, temporary works for this contract shall be any work or infrastructure and or establishment which the *Contractor* requires in order to provide the *Works*; which includes inter alia his laydown area, electricity, ablution facilities, jojo tanks etc. All such temporary works shall be adequately decommissioned, restoration to natural environment and the area made good on completion of the works all to the acceptance of the *Project Manager*.

Method statements shall be prepared prior to commencement of any work for the acceptance of the *Supervisor*. All costs relative to this aspect shall be on account of the *Contractor*.

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

Restrictions and hours of work may apply. The *Contractor* is required to keeps records of his people on Site, including those which the *Project Manager* or *Supervisor* has access to, at any time.

#### **Health and safety facilities on Site**

There are no health and safety facilities on-site. The *Contractor* shall make his own arrangements for site medical facilities, emergencies and fire-fighting facilities.

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

In accordance with clause 25.1 of NEC ECC

#### **Publicity and progress photographs**

The *Contractor* shall apply to the *Project Manager* for approval to take photos of his Works after contract start. Photos shall be restricted to his Works only for progress and quality monitoring.

**Contractor's Equipment**

The *Contractor* shall provide the *Supervisor* with a complete list of all the equipment he brings onto site and to the level of details instructed by the *Supervisor*.

**Site services and facilities**

The *Employer* shall provide power, potable water and sewer connections only at the Eskom office area.

**Facilities provided by the Contractor**

The *Contractor* shall provide all facilities and equipment necessary to execute and deliver the Works as per the Works Information.

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

The *Contractor* shall undertake the necessary ground surveys to identify underground services.

**Table 2: Areas for rehabilitation and landscaping**

<b>AREAS FOR REHABILITATION AND LANDSCAPING</b>	
<b>Area A:</b> Rehabilitation of <b>multiple dolerite stockpiles</b> located in the vicinity of Bramhoek Dam, shown on drawing number <b>18.83/275 SHT 2 Rev 0a</b> as per the specification in Part C3, and in accordance with the <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b> .	
[Info: This area was used to stockpile dolerite aggregate that was mined and crushed on site during	

the construction of the power station. These stockpiles are the left over aggregates of various sizes that have become redundant]	
Sub-section areas	Activities(s) description
A1: Dolerite stockpile north of the crusher sand material with a size of 0.56 hectares. [volume]	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.  NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i> .
A2: Access Road to area A1 with a size of 0.3 hectares. [volume]	The existing access road shall be used as the only access point to the working area.  Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.  Supply and placement of signage. [NO ENTRY/ REHABILITATED AREA]
A3: Area comprising of 9.5mm dolerite stockpile on 0.95 hectares, with an access point of 0.10 hectares . [volume]	The existing access road shall be used as the only access point to the working area Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3. Supply and placement of signage. [NO ENTRY/ REHABILITATED AREA]  NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i> .
A4: Is composed of five stockpiles of middling and rip-rap dolerite material. A4.1: 0.55 hectares [volume] A4.2: 0.20 hectares [volume] A4.3: 0.35 hectares [volume] A4.4: 0.25 hectares [volume] A4.5: 1.50 hectares [volume] A4.6: 0.15 hectares [volume]  The overall surface area of are A4 is 6 hectares.	Larger material (rip – rap) shall be levelled at the bottom and the finer (meddling) to be shaped over the larger material (rip-rap).  Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.  NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i> .
A5: Farmers area stockpiles of 6 hectares to be rehabilitated.	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3. Stockpiles are not to be landscaped but the disturbed areas around them are to be rehabilitated in accordance with the specification.
A5.1: Access point to Area 5.	The existing access road shall be used as the only access point to the working area.  Supply and placement of signage. [NO ENTRY/ REHABILITATED AREA]
Cut off trench of 350m (between the road at the stockpile area).	Re-instate the storm water channel as per <b>Annexure III 202-7945 Eskom Scope of works for the short-term rehabilitation of Malachite Stockpiles</b> .
<b>Area B: Rehabilitation of multiple gravel/ mud-rock stockpiles, shown on drawing number 18.83/275 SHT 1 Rev 0a as per the specification in Part C3 and in accordance with Annexure II:</b>	

<p>“Rehabilitation Strategy and Implementation Plan”.</p> <p>[Info: This area was part of the construction footprint and laydown areas and was subsequently use to stockpile material mined during the construction of the underground works. The material is primarily virgin mud rock]</p>	
Sub section areas	Activities(s) description
<p>Spoil material stockpile Topsoil cleared area. Aggregate stockpile cleared areas.</p> <p>Area B is 0.7 hectares</p>	<p>Mud rock stockpiles have been removed, shaped and topsoil.</p> <p>The Works in this area includes but not limited to the scarifying, topsoiling (partial area) and hydroseeding.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p> <p>Supply and placement of signage. [NO ENTRY/ REHABILITATED AREA]</p>
<p>Existing structures: Notification signs, Poles, Electrical DB board(s), Fence</p>	<p>The existing structures shall be dismantled, stored/donated and disposed of as per the relevant compliance obligations and as per <b>Annexure IV Ingula Waste Management Plan EMS 4.46 (W) and Appendix V: Ingula Construction Environmental Management Plan 13 May 2013 Rev 6</b>. Records shall be maintained in the Contractors environmental file.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
<p><b>Area C: Rehabilitation of a former labour camp</b>, shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: “Rehabilitation Strategy and Implementation Plan”</b>.</p> <p>[Info: This area was used to accommodate the construction labour force during the construction of the power station. The labour camp was demolished and rehabilitated but a portion of the area was subsequently used to store all concrete and building rubble removed from other areas of the site.]</p>	
Sub-section areas	Activities(s) description
Access road	<p>The existing access road shall be used as the only access point to the working area.</p> <p>Placement of signage at bell mouth.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
Concrete material [volume]	<p>Break down to minus 100mm, separate the reinforcement from the rubble, landscaping and revegetation as <b>section 3 Landscaping and re-vegetation</b> of this works information. Rebar and steel to be disposed off site.</p> <p>NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i>.</p>
Rubble storage footprint	<p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
<p><b>Area D: Rehabilitation of a former laydown area and road</b>, shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: “Rehabilitation Strategy and Implementation Plan”</b>.</p>	

[Info: This area was used by a contractor during the construction of the power station for his laydown and office area and was subsequently taken over and used by Eskom which is now no longer required]	
Sub-section areas	Activities(s) description
<b>Structures:</b> <ul style="list-style-type: none"> <li>- Offices building (including content and underground infrastructure(s)),</li> <li>- Vehicle parking structure,</li> <li>- Concrete slab and sump.</li> <li>- Fence, security building,</li> <li>- Hazardous substance container and slab,</li> <li>- Waste material,</li> <li>- Pavement bricks.,</li> <li>- JoJo tank,</li> <li>- Pump,</li> <li>- Grass</li> </ul>	<p>The existing structures shall be dismantled, stored/donated and disposed of as per the relevant compliance obligations and as per <b>Annexure IV Ingula Waste Management Plan EMS 4.46 (W) and Appendix V: Ingula Construction Environmental Management Plan 13 May 2013 Rev 6</b>. Records shall be maintained in the Contractors environmental file.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p> <p>NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i>.</p>
Impacted footprint ground/laydown area.	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
Access road	<p>The existing access road shall be used as the only access point to the working area. This access road shall be ripped, topsoiled and hydro seeded.</p> <p>Supply and placement of signage at bell mouth. [NO ENTRY/ REHABILITATED AREA]</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
<b>Area E: Rehabilitation of, all areas disturbed by the PWS Borehole 3 and 4 road construction activities shown on drawing number 18.83/275 SHT 1 Rev 0a as per the specification in Part C3 and in accordance with Annexure II: "Rehabilitation Strategy and Implementation Plan".</b>	
[Info: This area formed part of the works under the permanent water supply contract. The works was completed in July 2024 and the area was shaped and landscaped by Others. There are some outstanding rehabilitation activities]	
Sub-section areas	Activities(s) description
<b>Auxiliary slopes:</b> Borehole(s) 3 & 4 Secondary water treatment plant	Landscaping (if required) and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<b>Riparian slopes:</b> Stream crossings.	<p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p> <p>Dead trees shall be removed in and around the stream crossing areas.</p>
Riparian area upstream and downstream of and within stream crossing 2.	<p>Upstream and downstream shall be unblocked.</p> <p>NB. Before any work commences on this activity, permission must be sort in writing from the <i>Supervisor</i> and ECO.</p>
<b>Buffer areas and trench footprint:</b> Waterpipe and electrical cables trenches buffer zone and footprint.	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<b>Area F: Rehabilitation of, all areas disturbed by the PWS Borehole 2 construction activities shown</b>	

<p>on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b>.</p> <p>[Info: This area formed part of the works under the permanent water supply contract. The works was completed in July 2024 and the area was shaped and landscaped by Others. There are some outstanding rehabilitation activities]</p>	
Sub-section areas	Activities(s) description
<b>Buffer areas and trench footprint:</b> Waterpipe and electrical cables trenches buffer zone and footprint.	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<b>Access road point/bell mouth</b>	The existing access road shall be used as the only access point to the working area. Placement of signage at bell mouth. Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<p><b>Area G:</b> Rehabilitation of, <b>all areas disturbed by the Access Roads</b> construction activities shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b>.</p> <p>[Info: This area formed part of the works under the access roads and security building contract. The contract was not completed at the time of issuing this tender and it is anticipated that there will be some outstanding rehabilitation activities]</p>	
Sub-section areas	Activities(s) description
<b>Existing structures, construction equipment and material</b>	Landscaping (if required) and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<b>Main access tunnel buffer zone</b>	Landscaping (if required) and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<p><b>Area H:</b> Rehabilitation of, the <b>laydown area</b> shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b>.</p> <p>[Info: This area was part of the original construction footprint and was subsequently used by Others as a laydown area.]</p>	
Sub-section areas	Activities(s) description
<b>Existing structures, construction equipment and material:</b> <ul style="list-style-type: none"> <li>- Fence</li> <li>- Waste material</li> </ul>	The existing structures, construction equipment and material shall be dismantled/removed, stored/donated and disposed of as per the relevant compliance obligations and as per <b>Annexure IV Ingula Waste Management Plan EMS 4.46 (W) and Appendix V: Ingula Construction Environmental Management Plan 13 May 2013 Rev 6</b> . Records shall be maintained in the Contractors environmental file. Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<p><b>Area I:</b> Rehabilitation of, the <b>helipad and Parking</b> area shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b>.</p> <p>[Info: This area includes the original helipad and northern parking area for the Eskom offices.]</p>	

Sub-section areas	Activities(s) description
<b>Existing structures, construction equipment and material to be removed/rehabilitated/disposed:</b> <ul style="list-style-type: none"> <li>- Parking area</li> <li>- Concrete slabs</li> <li>- Rocks</li> <li>- Air direction flag</li> <li>- Fire extinguisher and pole</li> <li>- Dust monitoring bucket</li> </ul>	<p>The existing structures, construction equipment and material shall be dismantled/removed, stored/donated and disposed of as per the relevant compliance obligations and as per <b>Annexure IV Ingula Waste Management Plan EMS 4.46 (W) and Appendix V: Ingula Construction Environmental Management Plan 13 May 2013 Rev 6</b> . Records shall be maintained in the Contractors environmental file.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
<b>Access road</b>	<p>The existing access road shall be used as the only access point to the working area.</p> <p>Supply and placement of signage. [NO ENTRY/REHABILITATED AREA]</p>
<b>Area J:</b> Rehabilitation of, the <b>topsoil/subsoil stockpiles</b> shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b> .	
[Info: This area was used to stockpile topsoil and sub soil material for use in rehabilitation activities including this contract]	
Sub-section areas	Activities(s) description
<b>Topsoil/subsoil stockpile (3 hectares)</b>	<p>The <i>Contractor</i> shall use the existing access road to access the soil material to be used to cover all the areas for rehabilitation.</p> <p>Once the soil material has been exhausted the landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3 can commence in this area.</p> <p>Placement of signage at entrance point. [NO ENTRY/REHABILITATED AREA]</p>
<b>Area K:</b> Rehabilitation of, the <b>topsoil/subsoil stockpiles</b> shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b> .	
[Info: This area was used to stockpile topsoil and sub soil material for use in rehabilitation activities including this contract]	
Sub-section areas	Activities(s) description
<b>Topsoil/subsoil stockpile (0.85 hectares)</b>	<p>The <i>Contractor</i> is to open a single line access road of not more than 3meters to access the soil material to be used to cover all the areas for rehabilitation.</p> <p>The existing access road shall be used as the only access point to the working area.</p> <p>Once the soil material has been exhausted the landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3 can commence in this area.</p>

	Placement of signage at entrance point. [NO ENTRY/REHABILITATED AREA]
<p><b>Area L:</b> Rehabilitation of, the <b>Eskom GCD office precinct</b> shown on drawing number <b>18.83/275 SHT 1 Rev 0a</b> as per the specification in Part C3 and in accordance with <b>Annexure II: "Rehabilitation Strategy and Implementation Plan"</b>.</p> <p>[Info: This area is known as the Eskom GCD office precinct which was constructed during the construction phase of the power station and used by the Eskom project and engineering teams. The area is currently being used by Eskom.]</p> <p><b>NB: The Contractor is to provide a price for the rehabilitation of this area as listed below but may be removed in its entirety or in part from this scope. Works on this activity shall only commence upon receiving written approval by the Project Manager.</b></p>	
Sub-section areas	Activities(s) description
<p><b>Existing structures, construction equipment and material to be demolished/removed/rehabilitated:</b></p> <ul style="list-style-type: none"> <li>- Prefab office structures: 4100m<sup>2</sup></li> <li>- Cement paving bricks: 3000m<sup>2</sup></li> <li>- Concrete slabs: 700m<sup>3</sup></li> <li>-</li> </ul>	<p>The existing structures, construction equipment and material shall be dismantled/removed, stored/donated and disposed of as per the relevant compliance obligations and as per <b>Annexure IV Ingula Waste Management Plan EMS 4.46 (W) and Appendix V: Ingula Construction Environmental Management Plan 13 May 2013 Rev 6</b> . Records shall be maintained in the Contractors environmental file.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of this works information</p>
MISCELLANEOUS ACTIVITIES	
Sub-section areas	Activities(s) description
Zaaifontein access gate: Signages Sewage conservancy tank	Material to be removed of site and disposed of as per the relevant compliance obligations
Distribution mini sub area: Concrete slab and wooden poles Mini soil stockpile	<p>Material to be removed of site and disposed of as per the relevant compliance obligations.</p> <p>Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.</p>
Across site: Removal of additional signages (if and when required)	<p>Allow for 20 signs including supporting structures of between 1m<sup>2</sup> and 4m<sup>2</sup></p> <p>Material to be removed of site and disposed of as per the relevant compliance obligations</p>
Removal of additional stockpiles not identified in any of the Areas above. Allow for 1000m <sup>3</sup>	Landscaping and revegetation as per <b>section 3 Landscaping and re-vegetation</b> of Part C3.
<p>Removal of items from site not identified in any of the areas listed above</p> <ul style="list-style-type: none"> <li>- Pipes: 40m</li> <li>- Bricks: 20m<sup>3</sup></li> <li>- Timber: 20m<sup>3</sup></li> <li>- Steel: 20m<sup>3</sup></li> <li>-</li> </ul>	<p>Material to be removed of site and disposed of as per the relevant compliance obligations.</p> <p>Payment will be for whole quantity or proportionally per unit of measure.</p>

Removal of additional concrete slabs across site not listed in areas above. Allow for 100m <sup>3</sup>	Break down to minus 100mm, separate the reinforcement from the rubble, landscaping and revegetation as <b>section 3 Landscaping and re-vegetation</b> of this works information. Rebar and steel to be disposed off site.  NB. This material may be donated to interested parties with prior approval from the <i>Project Manager</i> .
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## LIST OF DRAWINGS

### Drawings issued by the *Employer*

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

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

Drawing number	Revision	Title
18.83/275 SHT 1	0a	LAYOUT & DETAILS STATION ENVIRONMENTAL REHABILITATION AREAS A - L
18.83/275 SHT 2	0a	LAYOUT & DETAILS STATION ENVIRONMENTAL REHABILITATION AREAS A



PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page	1
	Site Information	6
	Total number of pages	7

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## C4.1 LOCALITY PLAN

The project locality is shown in Figure 4-1 below.

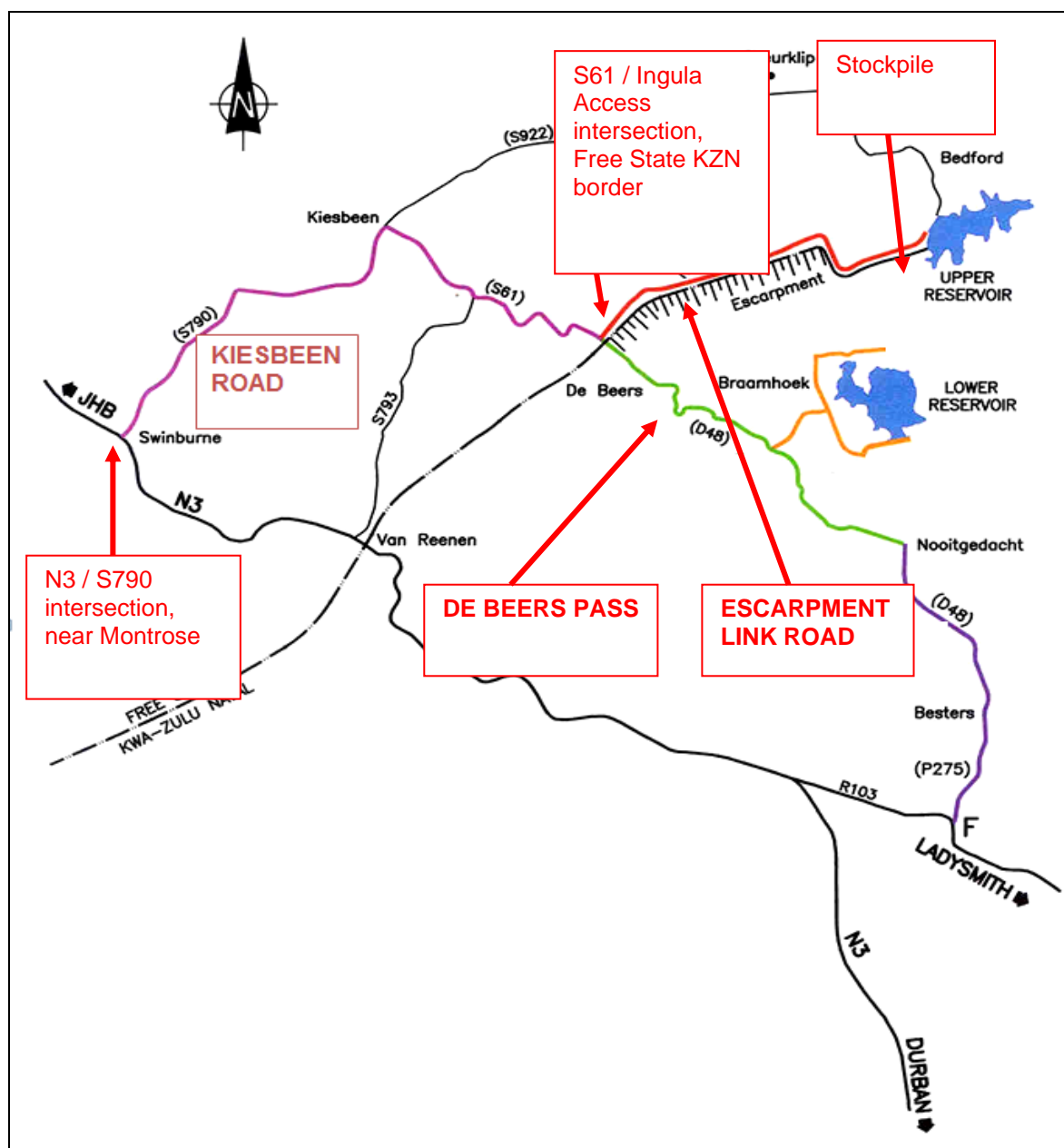


Fig. 4-1 : Locality Plan

## C4.2 MATERIALS

No borrow pits will be opened.

## C4.3 WEATHER

The site experiences a temperate-type climate with warm wet summers and cool dry winters.

### a. Temperatures

The KwaZulu Natal weather station (with climate data) closest to the Site is Ladysmith and the applicable temperature variations at this Station No. 0300454B2 are listed in Table 1/1 and 1/2 below.

**Table 1/1: Temperature Data for Ladysmith**

Month	Average Daily Temperatures (°C)		
	Maximum	Average	Minimum
January	29.5	23.2	16.8
February	28.5	22.5	16.4
March	27.7	21.4	15.0
April	25.1	18.0	10.9
May	22.7	14.6	6.2
June	20.1	11.1	2.0
July	20.6	11.5	2.5
August	22.7	14.4	6.0
September	25.3	17.6	10.0
October	26.1	19.2	12.3
November	27.4	20.9	14.4
December	29.2	22.7	16.0
<b>Average</b>	<b>25.4</b>	<b>18.1</b>	<b>10.7</b>

**Table 1/1: Temperature & Humidity Data for Van Reenen POL Weather Station**

Month	Average Daily Temperatures (°C)		Average Humidity (%)
	Maximum	Minimum	
January	23,8	13,4	71
February	23,7	13,6	72
March	22,7	12,1	70
April	20,9	8,5	60
May	18,4	3,8	48
June	16,9	1,3	42
July	15,7	0,6	42
August	19,2	3,9	39
September	20,9	6,8	45
October	22,1	9,7	57
November	21,0	10,6	64
December	24,3	13,0	66
Average	20,8	8,1	56

#### **b. Rainfall**

Average rainfall varies from just above 1000 mm per year on the edge of the escarpment to around 750 mm per year at Ladysmith.

The Bedford Dam catchment at the top of the escarpment indicates a MAP of 982 mm. Average monthly precipitations, based on Rainfall Gauge No. 0299 614, Bergville, and Rainfall Gauge No. 0333 682, Van Reenen, are given in Table 1/2 below:

**Table 1/2: Monthly Rainfall Distribution**

Month	Average Monthly Rainfall for Bergville (Station # 0299 614) (mm)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Precipitation	133	120	96	41	16.7	8.1	9.0	17.7	28.7	67	85	107
Month	Average Monthly Rainfall for Van Reenen POL Weather Station (mm)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Precipitation	228	179	97.1	38.2	28.3	10.5	11.4	20.4	38.5	100	94.1	147

**c.Exceedance Criteria for the Contract Data (Weather)**

Van Reenen POL Weather Station is the nominated rainfall station for Compensation Events in accordance with the Conditions of Contract.

Daily minimum temperature data from 1993 to 2005 and rainfall data from 1956 to 1988 for this Station were obtained from the South African Weather Service.

For each month the number of days where the minimum temperature fell below  $-5^{\circ}\text{C}$  and where rainfall exceeded 10 mm/day, were respectively counted. Using this data, statistical analyses were carried out to determine distributions for these events for each calendar month. Based on the statistical analysis results, the number of each event corresponding to the 1:10 year return period for these respective parameters are given in Table 1/3 below.

In terms of Clause 60.1 of NEC ECC, only the difference between the more adverse recorded weather and the equivalent measurement is taken into account in assessing a Compensation Event.

**Table 1/3: Number of Events corresponding to a 1:10 year return period**

Month	Number of Days	
	Minimum Temperature < -5°C	Rainfall > 10 mm/Day
January	0	10
February	0	10
March	0	7
April	0	4
May	2	2
June	4	2
July	6	1
August	4	2
September	2	4
October	0	7
November	0	8
December	0	8

## PART 2: PRICING DATA

### ECC3 Option A

Document reference	Title	No of pages
	This cover page	1
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>activity schedule</i>	11

## 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;
- 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.

## C2.2 the *activity schedule*

### INGULA PUMPED STORAGED SCHEME INGULA SITE REHABILITATION PROJECT

#### ACTIVITY SCHEDULE

REF	ITEM	DESCRIPTION	Allocation	PAYMENT METHOD	PRICES (In South African Rand - ZAR)	
				Local	Local Content	Total Price
	-	<b>AREA A</b>	-			
	1	<b>Signages</b>				
		Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
		<b>LANDSCAPING AND RE-VEGETATION should be done in all the area as per 2.5</b>				
	2	<b>Area A1</b>				
		Shaping and landscaping a hip of 4.2m <sup>3</sup> into a slope of 1:3 size 0.65 hectares and	Procurement, Transport & Labour		100%	

		scarifying, subsoil & topsoil and hydroseeding.				
	3	<b>Area A2</b>				
		Shaping, landscaping, scarifying, subsoil & topsoil and hydroseeding a road of 0.3 hectares.	Procurement, Transport & Labour		100%	
	4	<b>Area A3</b>				
		Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	4.1	Shaping and landscaping a hip of 25.34m <sup>3</sup> of 9.5mm concrete stones into a slope of 1:3 in the area of 0.95 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	4.2	Shaping and landscaping a hip of 4.20m <sup>3</sup> of 53mm concrete stone into a slope of 1:3 in the area of 0.25 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5	<b>Area A4 Total area is 6 hectares Middling and</b>				

		<b>Riprap</b>				
		Shaping and landscaping a existing access road into a slope of in the area of 0.10 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.1	Shaping and landscaping a hip of 22.02m <sup>3</sup> of G5/G6 concrete stone into a slope of 1:3 in the area of 0.55 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.2	Shaping and landscaping a hip of 1.29m <sup>3</sup> of rip-rap concrete stone into a slope of 1:3 in the area of 0.15 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.3	Shaping and landscaping a hip of 6.43m <sup>3</sup> of G5/G6 concrete stone into a slope of 1:3 in the area of 0.25 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	

	5.4	Shaping and landscaping a hip of 14.04m <sup>3</sup> of G5/G6 concrete stone into a slope of 1:3 in the area of 0.35 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.5	Shaping and landscaping a hip of 9.36m <sup>3</sup> of G5/G6 concrete stone into a slope of 1:3 in the area of 0.20 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.6	Shaping and landscaping a hip of 5.00m <sup>3</sup> of 19mm concrete stone into a slope of 1:3 in the area of 1.5 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5.7	Re-instate the existing 350m drainage line trench.	Labour		100%	
	6	<b>AREA 5 Farmers Property</b>				
	6.1	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	

	6.2	Shaping and landscaping a stockpile hips of concrete aggregates into a slope of 1:3 in the area of 15 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA B</b>				
	1	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	2	Remove all the existing structures, fence, poles, and electrical DB board and donate to the community.	Labour		100%	
	3	Shaping and landscaping a concrete aggregate stockpile into a slope of in the area of 0,7 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA C</b>				
	1	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	

	2	Shaping and landscaping an existing access road into a slope of in the area of 0.3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	3	Crush down the concrete rubble into size minus100mm and remove reinforcement from the rubble.	Procurement & Labour		100%	
	4	Shaping and landscaping rubble storage footprint into a slope of in the area 0.3 of hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA D</b>	-			
	1	Dismantling of the existing structures:				
	1.1	Offices building and donate to the community via stakeholder management.	Labour & Transport		100%	
	1.2	Underground services.	Labour & Transport		100%	
	1.3	Vehicles parking lot and donate to the community via	Labour & Transport		100%	

		stakeholder management.				
	1.4	Concrete slab and sump.	Labour & Transport		100%	
	1.5	Removal on fence and donate to the neediest community.	Labour & Transport		100%	
	1.6	Security booth.	Labour & Transport		100%	
	1.7	Hazardous substance container and the slab and dispose to the hazardous landfilled site.	Labour & Transport		100%	
	1.8	Waiste material and dispose to a registered landfilled site	Labour & Transport		100%	
	1.9	Pavement material and dispose to a registered landfilled site	Labour & Transport		100%	
	1.1	Removal of pump and dispose to a registered landfilled site.	Labour & Transport		100%	
	1.11	Removal of a Jojo tank and dispose to a registered landfilled site.	Labour & Transport		100%	
	2	Shaping and landscaping Impacted foot spring and laydown areas into a slope of in the	Procurement, Transport & Labour		100%	

		area of 0.9 hectares and scarifying, subsoil & topsoil and hydroseeding.				
	3.1	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	3.2	Shaping and landscaping an existing access road into a slope of in the area of 0.9 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA E</b>				
	1	Auxiliary slopes borehole 3 and 4 : Shaping and landscaping a existing area into a slope of in the area of 3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	2	Riparian slopes stream crossing: Remove all dead trees around the stream crossings.	Procurement, Transport & Labour		100%	
	2.1	Riparian slopes stream crossing: Shaping and landscaping a	Procurement, Transport & Labour		100%	

		existing area a slope of in the area of 3 hectares and scarifying, subsoil & topsoil and hydroseeding.				
	3	Riparian upstream and downstream crossing shall be unblocked.	Procurement, Transport & Labour		100%	
	4	Buffer areas and trench footprint shaping and landscaping an existing area a slope of in the area of hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA F</b>				
	1	Buffer areas and trench footprints shaping and landscaping a existing area a slope of in the area of 0.3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	2	<b>Access roads point bell mouth:</b> rehabilitation signages on the	Procurement, Installation & Labour		100%	

		entrance as per the discussion with the supervisor.				
	3	<b>Access roads point bell mouth:</b> shaping and landscaping an existing area a slope of in the area of hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA G</b>				
	1	Dismantle all the existing structures and equipment, donate this structure to the local community.	Procurement, Transport & Labour		100%	
	2	Shaping and landscaping a existing area a slope of in the area of 1 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	3	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	

	4	Shaping and landscaping a existing access road into a slope of in the area of 1 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	5	Shaping and landscaping an existing main access tunnel buffer zone into a slope of in the area of hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA H</b>	-			
	1	Dismantle all the existing structures fence and waste material, donate this structure to the local community.	Procurement, Transport & Labour		100%	
	2	Shaping and landscaping a existing area a slope of in the area of 0.2 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	3	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	

	4	Shaping and landscaping a existing access road into a slope of in the area of 0.2 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA I</b>	-			
	1	Dismantle all the existing structures concrete slab and car ports and donate this structure to the local community.	Procurement, Transport & Labour		100%	
	2	Dismantle all the existing structures air direction flag, fire extinguisher poles, rocks and donate this structure to the local community.	Procurement, Transport & Labour		100%	
	3	Shaping and landscaping a existing area a slope of in the area of 0.3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	

	4	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	5	Shaping and landscaping a existing access road into a slope of in the area of 0.3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA K</b>	-			
	1	The contractor to open a single line access road of not more than up a 3m to access to the stockpile and rehabilitate at completion.	Procurement, Transport & Labour		100%	
	2	The topsoil in stockpile K will be used to cover all the other areas that need the topsoil during rehabilitation and stockpile sizes of 0.85 hectares.	Procurement, Transport & Labour		100%	
	3	Stockpile K to be rehabilitated as per 2.5 works Information after utilisation or removal of all the topsoil and stockpile size is 0.85 hectares.			100%	

	4	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
		<b>AREA L</b>	-			
	1	Dismantle all the existing structures warehouse, underground structures and car ports and donate this structure to the local community.	Procurement, Transport & Labour		100%	
	2	Shaping and landscaping a existing area a slope of in the area of 3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	3	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	4	Shaping and landscaping a existing access road into a slope of in the area of 3 hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
		<b>AREA M</b>	-			

	1	Dismantle all the existing structures park homes, underground and above ground content structures, car ports, containers and donate this structure to the local community.	Procurement, Transport & Labour		100%	
	2	Shaping and landscaping a existing area a slope of in the area in hectares and scarifying, subsoil & topsoil and hydroseeding.	Procurement, Transport & Labour		100%	
	3	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
		<b>MISCELANEOUS ACTIVITIES</b>	-			
	1	Rehabilitation signages on the entrance as per the discussion with the supervisor.	Procurement, Installation & Labour		100%	
	2	Removal of the conservancy tank from Ingula site and dispose at registered land	Labour		100%	

		field site.				
	3	Removal of the concrete slab and wooden poles at the Mini sub area as per clause 2.5.	Labour		100%	
	4	Allow for repairs of 20 signages across the Ingula site with its all supporting structures.	Procurement, Installation & Labour		100%	
	5	Removal of any other existing stockpiles not identified above for at least 250m <sup>3</sup> .	Labour		100%	
	6	Removal of the existing pipe at the Labour area and dispose at registered land field site.	Labour		100%	
	7	Removal of all the concrete slabs on site and crush down the concrete rubble into size minus100mm and remove reinforcement from the rubble.	Labour		100%	
	8	Rehabilitate all those areas: Shaping and landscaping an existing area a slope of in that	Procurement, Installation & Labour		100%	

		area and scarifying, subsoil & topsoil and hydroseeding.				
		<b>TOTAL</b>				
		<b>NOTE</b>				
		All activities are inclusive of Preliminaries and General, Material and Labour.				
		All activities will be paid when all activities are at 100% completion.				