



NEC3 Term Service Contract (TSC3)

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

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

for **Refurbishment of Gearboxes & Geared Motors and
supply of new Gearboxes & Geared Motors “as and
when” required basis for a period of 5 years.**

Contents:	No of pages
Part C1 Agreements & Contract Data	1
Part C2 Pricing Data	8
Part C3 Scope of Work	37

CONTRACT No. [Insert at award stage]

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

PART C1: AGREEMENTS & CONTRACT DATA

Contents:	No of pages
C1.1 Form of Offer and Acceptance	3
C1.2a Contract Data provided by the <i>Employer</i>	14
C1.2b Contract Data provided by the <i>Contractor</i>	

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

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:

Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years.

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 ¹	R [•]
	(in words) [•]	

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

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

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

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: Service 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 and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

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

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

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

Note:

1. .

No.	Subject	Details
1	[•]	[•]
2	[•]	[•]

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

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

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

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

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

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

	Fax	[•]
	e-mail	[•]
11.2(2)	The Affected Property is	Tutuka Power Station
11.2(13)	The <i>service</i> is	Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years.
11.2(14)	The following matters will be included in the Risk Register	Risks for the refurbishment scope • Quality of workmanship • Unexpected additional repairs • Refurbished gearbox does not meet performance specs • Personal injury from heavy lifting • Electrical hazard during motor disconnection Risks for the supply scope • Failure to meet delivery date • Gearbox damaged during transport • Missing compliance documentation (CoC, test certificates)
11.2(15)	The Service Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	Two (2) days
2	The Contractor’s main responsibilities	Data required by this section of the core clauses is also provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data
21.1	The <i>Contractor</i> submits a first plan for acceptance within	1 week of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	[•]
30.1	The <i>service period</i> is	60 Months
4	Testing and defects	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
5	Payment	

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

50.1	The <i>assessment interval</i> is	On completion of each order and delivery
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	60 Days.
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and (ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.
6	Compensation events	Works/Task that are not included in the Service Information (scope), Appendix or Annexures.
7	Use of Equipment Plant and Materials	As per NEC TSC clause 70
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	None
9	Termination	Termination will be dealt with as per NEC3 TSC termination clauses
10	Data for main Option clause	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	4 weeks

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

11	Data for Option W1		
W1.1	The <i>Adjudicator</i>	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).	
	Address	[•]	
	Tel No.	[•]	
	Fax No.	[•]	
	e-mail	[•]	
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body.	
W1.4(2)	The <i>tribunal</i> is:	arbitration	
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.	
	The place where arbitration is to be held is	South Africa	
	The person or organisation who will choose an arbitrator	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.	
	- if the Parties cannot agree a choice or		
	- if the arbitration procedure does not state who selects an arbitrator, is		
12	Data for secondary Option clauses		
X1	Price adjustment for inflation		
X1.1	The <i>base date</i> for indices is	The month prior to the enquiry closing date.	
	The proportions used to calculate the Price Adjustment Factor are:	proportion	linked to index for
		0.	[•]
		0.	[•]
		0.	[•]
		15%	non-adjustable
		100%	

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

X2	Changes in the law	Of the Republic of South Africa
X17	Low service damages	
X17.1	The <i>service level table</i> is in	Appendix A on this document
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	the amount of the deductibles relevant to the event
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	The greater of • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	the total of the Prices other than for the additional excluded matters. The <i>Contractor's</i> total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for • Defects due to his design, plan and specification, • Defects due to manufacture and fabrication outside the Affected Property, • loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), • death of or injury to a person and • infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	12 months after the end of the <i>service period</i>.
X19	Task Order	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	Three (3) days of receiving the task/Purchase Order
X20	Key Performance Indicators	
X20.1	The <i>incentive schedule</i> for Key Performance Indicators is in	No incentive schedules

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

		No incentives will be paid out for Key performance indicators. KPI's are there to monitor performance of this contract Key performance indicators table is in appendix B of this contract document
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	6 months
Z	The <i>additional conditions of contract</i> are	Z1 to Z14 always apply.

Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

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

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

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Service.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

and A3 as stated in clause 93.

Z4 Confidentiality

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the “Principal Contractor” (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) (“the Construction Regulations”) for the Affected Property;
 - warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of the *service*; and
 - undertakes, in and about the execution of the *service*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor*’s direction and control, likewise observe and comply with the foregoing.

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

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

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

- Z7.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

- Z8.1 Delete the last paragraph of core clause 61.3 and replace with:

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

Z9 Employer's limitation of liability

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 The *Contractor's* entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

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

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

Z11 Ethics

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

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

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

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

Affected Party to act unlawfully or illegally,

Collusive Action

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

Committing Party

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

Corrupt Action

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

Fraudulent Action

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

Obstructive Action

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

Prohibited Action

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

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

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

Insurance cover 83

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

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

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
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Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

Loss of or damage caused by the <i>Contractor</i> to the <i>Employer's</i> property	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service	<u>Loss of or damage to property</u> The replacement cost <u>Bodily injury to or death of a person</u> The amount required by the applicable law.
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z 12.2 Replace core clause 86 with the following:

Insurance by the Employer

86

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

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum limit of indemnity
Assets All Risk	Per the insurance policy document

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

- Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

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

- AAIA** means approved asbestos inspection authority.
- ACM** means asbestos containing materials.
- AL** means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
- Ambient Air** means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

inlet.

Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

- Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) (“Asbestos Regulations”). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.
- Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

C1.2 Contract Data

Part two - Data provided by the *Contractor*

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key people are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	
CV's (and further key person's data including CVs) are in _____.		
A	Priced contract with price list	
11.2(12)	The <i>price list</i> is in	

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

11.2(19)	The tendered total of the Prices is	R
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Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title
C2.1	Pricing assumptions: Option A
C2.2	The <i>price list</i>

Contract Title **Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years**

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

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

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

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

Function of the Price List

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

Link to the *Contractor’s* plan

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

Preparing the *price list*

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

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

- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;

Contract Title Refurbishment of Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors “as and when” required basis for a period of 5 years

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

Format of the *price list*

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

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

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

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

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

C2.2 the *price list*

Supply Price list

Item nr	Description	Unit	Stock number	Rate
1	David Brown, H- series Type: B3-450 Ratio: 20.9:1 69rpm 240.5kW LH and RH gearboxes	EA	176906	
2	David Brown, Radicon Worm - CS8 Ration: 20:1 1480/74 rpm 7,5kW	EA	176936	
3	David Brown, Radicon Worm- CS10 Ratio: 20:1 Speed: 1480/74 rpm 11kW	EA	176930	
4	CU700 Ration: 25:1 Speed: 1440rpm 7,5kW	EA	571107	
5	Flender KZA 200	EA	176836	
6	Reduction Gearbox Ratio: 30:1 Speed: 1500 rpm Power: 1.5 kW	EA	771835	
7	Flender KZA 225, S/No: 479311014/4/1, Ratio: 22,14:1 Speed: 1480rpm Power 45kW	EA	176837	
8	Flender Redurex Type: KZA 400 Hollow shaft Ration: 26.3:1	EA	176838	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

	Speed:1500rpm 323kW LH(4) and RH(2) gearboxes			
9	Dymot geared electirc winch	EA	573122	
10	David Brown Worm gear Speed: 980rpm kW: 45 LH and RH gearboxes	EA	527641	
11	Lohmann/Stolterfoht Gearbox; reduction; Ratio: 1868,5917:1, Type: GPW130. Drg no: 0/3838/5044/0 Ration: 1400:1	EA	177782	
12	David Brown, H Series B3-280 Ratio: 18,9:1 Speed: 86rpm 90KW LH and RH boxes	EA	611224	
13	Motor Geared Ratio: 60:1 Output speed: 16,16 rpm 10,58kW	EA	229737	
14	David Brown, H Series Type:B3-250 Ration:18.9:1 Speed:78rpm 65,6kW LH and RH gearboxes	EA	176900	
15	BF70-05 A/D16 LA4 Speed: 46rpm Ratio: 28.8:1 15kW	EA	250345	
16	Type: AG43-12/OK84- 2005A Speed:1420 rpm Ratio: 186.842:1 0.55kW	EA	698599	
17	CEFILAC Reduction Gearbox Ratio: 30:1 Speed: 1500 rpm Power: 1.5 Kw	EA	771837	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

18	Motor Geared Speed: 1420 rpm 1.1kW	EA	140733	
19	KZA 200 GB HOLLOW SHAFT	EA	29146	
20	Helical Bevel Gearmotor Ratio: 28.2:1 Speed: 1800 rpm Power: 5.5 kW	EA	772018	
21	Gearbox C/W Variator Ratio: 30:1 Speed: 1500 rpm Power: 5.5 kW	EA	771849	
22	David Brown, BEW Type: BDA320 Ratio: 14:1 Speed:1485 rpm 110kW	EA	251093	
23	David Brown, BEW Type: BDA440 Ratio: 18:1 Speed:79,81rpm 350kW	EA	623522	
24	David Brown, BEW Type:BTA500 Ratio: 22,4:1 Speed:1480 rpm 350kW Bi-directional	EA	599300	
25	David Brown, BEW Type: BDA380 Ratio: 18:1 Speed:1985 rpm 160kW	EA	623523	
26	David Brown, BEW 65M - Worm shaft Ratoio: 40:1	EA	772019	
27	Hansen RDE43 ANR Ratio: 100:15:1	EA	772020	
28	Thyssenkrupp Bevel Helical Ratio:727,45:1 Speed:1500 3,28kW	EA	582993	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

	AAKCV125/PBN450/S 1983. Serial no: 8841551238			
29	David Brown Type:B35-80 Ratio: 31,1:1 Speed:1450rpm 10kW	EA	251092	
30	Thyssenkrupp Bevel helical planetary shaft mounted gearbox Ratio: 218:1 Speed: 1480rpm 96kW	EA	582995	
31	David Brown, Radicon B2-SF200 Speed:1460rpm	EA	553274	
32	Hansen Gearbox: 36 AN, Reduction	EA	25935	
33	GEARBOX:REDUCTION; 88:2; 1500 RPM; 132 KW	EA	772131	
34	GEARBOX:REDUCTION; 88:2; 1500 RPM; 132 KW	EA	772130	
35	Bonfiglio, Gear Unit Assembly HDO120/317 Planetary	EA	725112	
36	David Brown, H Series B3-500. Ratio: 28,4:1 Speed: 51 rpm 429kW LH and RH gearboxes	EA	176902	
37	David Brown, H Series B3-280 Ratio: 17,2:1 Speed: 86rpm 90kW LH and RH gearboxes	EA	176901	
38	David Brown, H Series B3-250 Ratio: 18,9:1	EA	176900	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

	Speed: 78 rpm 65,6kW RH and LH gearboxes			
39	David Brown, H Series H2-355 RH Ratio: 20,9:1 Speed: 45rpm 128,3kW LH and RH gearboxes	EA	176899	
40	David Brown, Radicon CU / DU 10 Ratio- 20:1 RH gearbox	EA	176938	
41	David Brown, Radicon CU / DU 14 Ratio 15:1 IP Speed: 1480 45kW RH gearbox	EA	176937	
42	David Brown, Radicon CU /DU600 Ratio: 20:1 RH gearbox	EA	25747	
43	David Brown, Radicon 6SMB RH Ratio: 100:15 Speed: 1485 rpm 40kW	EA	225493	
44	KA77B/A; Ration: 12:36; Speed: 113 rpm;	EA	251094	
45	David Brown, Radicon CU800 Ratio: 40:1 Speed:1450 rpm 17.3kW	EA	176939	
46	BEW Gear BTB320/171 Ratio: 40:1 Speed 1440rpm 75kW	EA	177265	
47	Siemens Geared Motor Output speed: 16,54 rpm Ratio: 90:1	EA	501128	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

48	Siemens Geared Motor Ratio: 90:1 Speed: 720/1460rpm 16/32kW	EA	501129	
49	Agitator; Speed: 77 rpm Ratio: 4:1 2.2kW	EA	253696	
50	G&C Gearbox, Ratio: 12.17, Speed: 1460 rpm 25kW	EA	25499	
51	Nord Gears Gearbox, Bridge drive, 0.37kW Speed: 1375 rpm	EA	26656	
52	Weco Speed reducer; 20:1; 356/17.73 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	EA	177096	
53	Weco Speed reducer; 20:1; 356 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	EA	177097	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Refurbishment Price List

Item nr	Description	Unit	Stock number	Rate
1	David Brown, H- series Type: B3-450 Ratio: 20.9:1 69rpm 240.5kW LH and RH gearboxes	EA	176906	
2	David Brown, Radicon Worm - CS8 Ration: 20:1 1480/74 rpm 7,5kW	EA	176936	
3	David Brown, Radicon Worm- CS10 Ratio: 20:1 Speed: 1480/74 rpm 11kW	EA	176930	
4	CU700 Ration: 25:1 Speed: 1440rpm 7,5kW	EA	571107	
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8	Flender Redurex Type: KZA 400 Hollow shaft Ration: 26.3:1 Speed:1500rpm 323kW LH(4) and RH(2) gearboxes	EA	176838	
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Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

10	David Brown Worm gear Speed: 980rpm kW: 45 LH and RH gearboxes	EA	527641	
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15	BF70-05 A/D16 LA4 Speed: 46rpm Ratio: 28.8:1 15kW	EA	250345	
16	Type: AG43-12/OK84-2005A Speed:1420 rpm Ratio: 186.842:1 0.55kW	EA	698599	
17	CEFILAC Reduction Gearbox Ratio: 30:1 Speed: 1500 rpm Power: 1.5 Kw	EA	771837	
18	Motor Geared Speed: 1420 rpm 1.1kW	EA	140733	
19	KZA 200 GB HOLLOW SHAFT	EA	29146	
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Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

	Speed: 1800 rpm Power: 5.5 kW			
21	Gearbox C/W Variator Ratio: 30:1 Speed: 1500 rpm Power: 5.5 kW	EA	771849	
22	David Brown, BEW Type: BDA320 Ratio: 14:1 Speed:1485 rpm 110kW	EA	251093	
23	David Brown, BEW Type: BDA440 Ratio: 18:1 Speed:79,81rpm 350kW	EA	623522	
24	David Brown, BEW Type: BTA500 Ratio: 22,4:1 Speed:1480 rpm 350kW Bi-directional	EA	599300	
25	David Brown, BEW Type: BDA380 Ratio: 18:1 Speed:1985 rpm 160kW	EA	623523	
26	David Brown, BEW 65M - Worm shaft Ratio: 40:1	EA	772019	
27	Hansen RDE43 ANR Ratio: 100:15:1	EA	772020	
28	Thyssenkrupp Bevel Helical Ratio:727,45:1 Speed:1500 3,28kW AAKCV125/PBN450/S 1983. Serial no: 8841551238	EA	582993	
29	David Brown Type: B35-80 Ratio: 31,1:1 Speed:1450rpm 10kW	EA	251092	

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

30	Tyssenkrupp Bevel helical planetary shaft mounted gearbox Ratio: 218:1h Speed: 1480rpm 96kW	EA	582995	
31	David Brown, Radicon B2-SF200 Speed:1460rpm	EA	553274	
32	Hansen Gearbox: 36 AN, Reduction	EA	25935	
33	GEARBOX:REDUCTION; 88:2; 1500 RPM; 132 KW	EA	772131	
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35	Bonfiglio, Gear Unit Assembly HDO120/317 Planetary	EA	725112	
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Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

40	David Brown, Radicon CU / DU 10 Ratio- 20:1 RH gearbox	EA	176938	
41	David Brown, Radicon CU / DU 14 Ratio 15:1 IP Speed: 1480 45kW RH gearbox	EA	176937	
42	David Brown, Radicon CU /DU600 Ratio: 20:1 RH gearbox	EA	25747	
43	David Brown, Radicon 6SMB RH Ratio: 100:15 Speed: 1485 rpm 40kW	EA	225493	
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Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

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52	Weco Speed reducer; 20:1; 356/17.73 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	EA	177096	
53	Weco Speed reducer; 20:1; 356 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	EA	177097	

Note.

On the Refurbishment price list *Contractor* to submit a full breakdown of each gearbox with pricing for all gearboxes including strip and quote rate when submitting the returnable. The total for each gearbox must be on the price list of the NEC, and the full breakdown attached to NEC.

PART 3: SCOPE OF WORK

Document reference	Title
	This cover page
C3.1	<i>Employer's</i> Service Information
C3.2	<i>Contractor's</i> Service Information

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

C3.1: EMPLOYER'S SERVICE INFORMATION

Contents

Part 3: Scope of Work	36
C3.1: Employer's service Information	37
1 Description of the <i>service</i>	39
1.1 Executive overview	39
1.2 <i>Employer's</i> requirements for the <i>service</i>	39
1.3 Interpretation and terminology	50
2 Management strategy and start up.	53
2.1 The <i>Contractor's</i> plan for the <i>service</i>	53
2.2 Management meetings	53
2.3 <i>Contractor's</i> management, supervision and key people	54
2.4 Provision of bonds and guarantees	54
2.5 Documentation control	54
2.6 Invoicing and payment	54
2.7 Contract change management	55
2.8 Records of Defined Cost to be kept by the <i>Contractor</i>	55
2.9 Insurance provided by the <i>Employer</i>	55
2.10 Training workshops and technology transfer	55
2.11 Design and supply of Equipment	55
2.12 Things provided at the end of the <i>service period</i> for the <i>Employer's</i> use	55
2.12.1 Equipment	55
2.12.2 Information and other things	55
2.13 Management of work done by Task Order	56
3 Health and safety, the environment and quality assurance	56
3.1 Health and safety risk management	56
3.2 Environmental constraints and management	60
3.3 Quality assurance requirements	60
4 Procurement	61
4.1 People	61
4.1.1 Minimum requirements of people employed	61
4.1.2 BBBEE and preferencing scheme	61
4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)	
Error! Bookmark not defined.	
4.2 Subcontracting	61
4.2.1 Preferred subcontractors	61
4.2.2 Subcontract documentation, and assessment of subcontract tenders	61
4.2.3 Limitations on subcontracting	61
4.2.4 Attendance on subcontractors	61
4.3 Plant and Materials	62
4.3.1 Specifications	62
4.3.2 Correction of defects	62
4.3.3 <i>Contractor's</i> procurement of Plant and Materials	62
4.3.4 Tests and inspections before delivery	62
4.3.5 Plant & Materials provided "free issue" by the <i>Employer</i>	62
4.3.6 Cataloguing requirements	62
5 Working on the Affected Property	62
5.1 <i>Employer's</i> site entry and security control, permits, and site regulations	62
5.2 People restrictions, hours of work, conduct and records	63
5.3 Health and safety facilities on the Affected Property	63

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

5.4	Environmental controls, fauna & flora.....	64
5.5	Cooperating with and obtaining acceptance of Others.....	66
5.6	Records of <i>Contractor's</i> Equipment.....	66
5.7	Equipment provided by the <i>Employer</i>	66
5.8	Site services and facilities.....	66
5.8.1	Provided by the <i>Employer</i>	66
5.8.2	Provided by the <i>Contractor</i>	66
5.9	Control of noise, dust, water and waste	68
5.10	Hook ups to existing works	68
5.11	Tests and inspections	68
5.11.1	Description of tests and inspections	68
5.11.2	Materials facilities and samples for tests and inspections.....	68
6	List of drawings.....	68
6.1	Drawings issued by the <i>Employer</i>	68

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

1 Description of the service

1.1 Executive overview

The Scope of work is to supply new gearboxes, strip & assess (including report) and repair the of reduction gearboxes in the Bulk Handling Material Plants (i.e. Coal Stock Yard Plant, Terrace Coal Plant, Dust Handling Plant and Ash Disposal Plant), Milling Plant, Mill Feeders, Air Heaters and Water Treatment Plant at Tutuka Power Station.

Applicable Plant

This Scope of work applies to gearboxes of the various plant area in the station as listed below following:

- **Coal Stock Yard:** Conveyor plant, Stacker Reclaim and Yellow plant.
- **Ash Disposal Plant:** Conveyor plant, Stacker, and Stacker boom.
- **Dust Handling Plant:** Common and Unitized plants.
- **Terrace Coal Handling Plant:** Common and Unitized plants.
- **Air heaters:** Unitized plants.
- **Mill feeders:** Unitized plants.

1.2 Employer's requirements for the service

1.2.1 REFURBISHMENT AND SUPPLY SCOPE OF WORK

Contractor to provide the services of the supply of new power transmission gear units, relevant maintenance spares, quality refurbishment and provide technical support when required as follows at Tutuka Power Station:

Location	Component Description	Stock Nr
ASH Disposal Plant		
North and South overland	David Brown, H- series Type: B3-450 Ratio: 20.9:1 69rpm 240.5kW LH and RH gearboxes	176906
Short Coarse Ash	David Brown, Radicon Worm - CS8 Ration: 20:1 1480/74 rpm 7,5kW	176936
Long coarse Ash	David Brown, Radicon Worm- CS10 Ratio: 20:1 Speed: 1480/74 rpm 11kW	176930

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Long Coarse Ash Moveable Head Gearbox Conditioner conveyor moveable head gearbox	CU700 Ratio: 25:1 Speed: 1440rpm 7,5kW	571107
Spreader Boom	Flender KZA 200	176836
Spreader cable reel gearbox (for both power & control cable)	Reduction Gearbox Ratio: 30:1 Speed: 1500 rpm Power: 1.5 kW	771835
Link/Stacker Boom	Flender KZA 225, S/No: 479311014/4/1, Ratio: 22,14:1 Speed: 1480rpm Power 45kW	176837
Extendable/Shiftable conveyor	Flender Redurex Type: KZA 400 Hollow shaft Ratio: 26.3:1 Speed: 1500rpm 323kW LH(4) and RH(2) gearboxes	176838
Extendable Tension Winch Gearbox	Dymot geared electric winch	573122
Stacker crawler drive	David Brown Worm gear Speed: 980rpm kW: 45 LH and RH gearboxes	527641
Ash stacker/Spreader slew gearbox	Lohmann/Stolterfoht Gearbox; reduction; Ratio: 1868,5917:1, Type: GPW130. Drg no: 0/3838/5044/0 Ratio: 1400:1	177782
Transverse conveyor	David Brown, H Series B3-280 Ratio: 18,9:1 Speed: 86rpm 90KW LH and RH boxes	611224

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Transverse movable head gearbox Cross moveable head gearbox	Motor Geared Ratio: 60:1 Output speed: 16,16 rpm 10,58kW	229737
Cross conveyor	David Brown, H Series Type:B3-250 Ration:18.9:1 Speed:78rpm 65,6kW LH and RH gearboxes	176900
Shuttles main drive gearbox	BF70-05 A/D16 LA4 Speed: 46rpm Ratio: 28.8:1 15kW	250345
Shuttles travel gearbox	Type: AG43-12/OK84-2005A Speed:1420 rpm Ratio: 186.842:1 0.55kW	698599
Stacker Cable reel gearbox (for both power & control cable)	CEFILAC Reduction Gearbox Ratio: 30:1 Speed: 1500 rpm Power: 1.5 Kw	771837
Tripper car travel drives gearbox	Motor Geared Speed: 1420 rpm 1.1kW	140733
Spreader gearbox	KZA 200 GB HOLLOW SHAFT	29146
In loading Mobile Feeder Gearbox (Short Conveyor)	Helical Bevel Gearmotor Ratio: 28.2:1 Speed: 1800 rpm Power: 5.5 kW	772018
In loading Mobile Feeder Gearbox (Long Conveyor)	Gearbox C/W Variator Ratio: 30:1 Speed: 1500 rpm Power: 5.5 kW	771849
Coal Stock Yard		
16	David Brown, BEW Type: BDA320 Ratio: 14:1 Speed:1485 rpm 110kW	251093

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

11,12,15,18	David Brown, BEW Type: BDA440 Ratio: 18:1 Speed:79,81rpm 350kW	623522
17	David Brown, BEW Type:BTA500 Ratio: 22,4:1 Speed:1480 rpm 350kW Bi-directional	599300
13,14,22	David Brown, BEW Type: BDA380 Ratio: 18:1 Speed:1985 rpm 160kW	623523
20,21	David Brown, BEW 65M - Worm shaft Ratio: 40:1	772019
23	Hansen RDE43 ANR Ratio: 100:15:1	772020
STACKER SLEW GRBX SR 1&3	Thyssenkrupp Bevel Helical Ratio:727,45:1 Speed:1500 3,28kW AAKCV125/PBN450/S 1983. Serial no: 8841551238	582993
Coal Stacker Reclaim travel drives	David Brown Type:B35-80 Ratio: 31,1:1 Speed:1450rpm 10kW	251092
Stacker/Reclaimer bucket wheel G/B	Thyssenkrupp Bevel helical planetary shaft mounted gearbox Ratio: 218:1 Speed: 1480rpm 96kW	582995
Stacker/Reclaimer Elevator conveyor	David Brown, Radicon B2-SF200 Speed:1460rpm	553274
Stacker/Reclaimer boom gearbox	Hansen Gearbox: 36 AN, Reduction	25935
Buffalo feeders reduction gearbox - Left	GEARBOX: REDUCTION; 88:2; 1500 RPM;	772131

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

	132 KW	
Buffalo feeders reduction gearbox - Right	GEARBOX: REDUCTION; 88:2; 1500 RPM; 132 KW	772130
Buffalo feeders Planetary gearbox	Bonfiglio, Gear Unit Assembly HDO120/317 Planetary	725112
Terrance coal Plant		
Over Silo 6A/B	David Brown, H Series B3-500. Ratio: 28,4:1 Speed: 51 rpm 429kW LH and RH gearboxes	176902
Over Silo 4A/B&2A/B Transverse conveyor	David Brown, H Series B3-280 Ratio: 17,2:1 Speed: 86rpm 90kW LH and RH gearboxes	176901
Over Silo 5A/B,3A/B&1A/B ASH-Cross conveyor	David Brown, H Series B3-250 Ratio: 18,9:1 Speed: 78 rpm 65,6kW RH and LH gearboxes	176900
Unit Incline 1 to 6	David Brown, H Series H2-355 RH Ratio: 20,9:1 Speed: 45rpm 128,3kW LH and RH gearboxes	176899
Cross Conveyor	David Brown, Radicon CU / DU 10 Ratio- 20:1 RH gearbox	176938
Bunker Feed East & West	David Brown, Radicon CU / DU 14 Ratio 15:1 IP Speed: 1480 45kW RH gearbox	176937
Bunker distribution A,C,D&F ASH - Overland tension winch gearbox	David Brown, Radicon CU /DU600 Ratio: 20:1 RH gearbox	25747

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Coal Shuttle conveyor	David Brown, Radicon 6SMB RH Ratio: 100:15 Speed: 1485 rpm 40kW	225493
Incline magnet Cov 1-6 GRBX 18-1/2/3 Magnet Magnet 16A /16B	KA77B/A; Ration: 12:36; Speed: 113 rpm;	251094
Dust Handling Plant		
Conditioner conveyor	David Brown, Radicon CU800 Ratio: 40:1 Speed:1450 rpm 17.3kW	176939
Ash conditioner	BEW Gear BTB320/171 Ratio: 40:1 Speed 1440rpm 75kW	177265
Bucket elevator	Siemens Geared Motor Output speed: 16,54 rpm Ratio: 90:1	501128
Bucket elevator	Siemens Geared Motor Ratio: 90:1 Speed: 720/1460rpm 16/32kW	501129
Ash conditioning sump	Agitator; Speed: 77 rpm Ratio: 4:1 2.2kW	253696
Air heater		
Air heater drive	G&C Gearbox, Ratio: 12.17, Speed: 1460 rpm 25kW	25499
Clarifier bridge drive	Nord Gears Gearbox, Bridge drive, 0.37kW Speed: 1375 rpm	26656
Milling Plant		

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Mill feeder gearbox NDE	Weco Speed reducer; 20:1; 356/17.73 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	177096
Mil feeder gearbox DE	Weco Speed reducer; 20:1; 356 rpm, 2LT33, 0,61/08855 rev 1; 3,67kW	177097

1.2.2 Strip and Asses

A strip and asses QCP must be compiled and send to the *Employer* for approval by Engineering and maintenance to ensure that the required intervention points (hold- and witness) clear during the striping process.

1.2.3 The following checks are recommended when the Contractor receives the gearbox:

- a. The *Contractor* will clean and record the nameplate details and/or shaft end stampings upon receiving the unit. The he/she will check the delivery documents and the client/Eskom's initial work requirements.
- b. The *Contractor* will remove the top of the case and record the layout of the gearing.
- c. The *Contractor* also will record the following:
 - The running contact pattern, for gearboxes with horizontal shafts.
 - The backlash for each reduction stage, for gearboxes with horizontal shafts.
 - The shaft end floats, for gearboxes with horizontal shafts.
 - Any visual signs of damage, wear, or profile change including pictures.
- d. The *Contractor* will remove the shafts, bearings, and gears from the case.

1.2.4 The following checks are recommended to be performed by the contractor on the gears:

- a. A 100% MPI of all gear teeth. All indications must be recorded.
- b. Visual inspections of all gear flanks for changes in profiles, wear or damage.
- c. The shaft and bore of the gear should be checked for signs of fretting and corrosion.
- d. For dismantled gear/shaft assemblies, MPI all keyways and measure and record the dimensions of all keys and keyways.
- e. Measure the dimensions of the gear-bore and the shaft diameters to check and confirm fits and tolerances.
- f. If new gears are required and no drawing exists, record face-width, number of teeth, gear types and heat treatment method (through hardened, nitrided, carburized, induction or flame hardened).

1.2.5 The following checks are recommended to be performed by the contractor on the bearings:

Bearings should be removed; care should be taken not to damage them while removing them. For refurbished and re-manufactured gearboxes, it is good practice to replace all bearings. In the case of repaired gearboxes, if a bearing has completed less than 50% it's L₁₀ design running hours and the

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

bearings are in good condition, as inspected and verified as suitable by the original bearing manufacturers' technical department, or a suitably qualified person, they may be re-installed for further service. If bearings, which have completed a significant portion of their L₁₀ design life are re-used, the manufacturer may waive any guarantees on the repairs. Generally, the use of the *old bearings is not recommended*.

- a. Visually inspect the rolling elements and raceways for signs of wear and damage.
- b. Check the outer races for signs of movement in the bearing bores of the case and for signs of fretting and corrosion.
- c. Check the wear patterns of the bearing races for indications of misalignment.

1.2.6 The following checks will be performed by the Contractor on the shafts:

- a. MPI the shaft with attention to keyways, fillet radii and changes in section of the shaft.
- b. Check all bearing seats for signs of wear.
- c. Measure the bearing seats to check fits and tolerances and compare with the selected or specified bearing.
- d. Check oil seal tracks for signs of damage or wear.

1.2.7 The following checks will be performed by the Contractor on the casing:

- a. Inspect case joints for the presence of paper or other gasket materials.
- b. Check condition of all machined joint faces for damage.
- c. Check alignment of joint faces with gearbox feet and mounting faces.
- d. MPI all bearing bores and case feet.
- e. Dye penetrant test entire case after cleaning if required.
- f. Visually inspect all bores for signs of wear.
- g. For fabricated boxes, MPI all welds.
- h. Re-assemble case (with gasket if required) and tighten all bolts to the manufacturers specified torque.
- i. Measure all bearing bore diameters (vertically and across the joint).
- j. Measure centre distances of each bore and compare with drawing requirements.

1.2.8 The following checks will be performed by the Contractor on the other items:

- a. Record the details of all fastenings (nuts and bolts), dowels, washers, locking screws, seals and gaskets.
- b. Visually inspect all covers, oil catchers, loose bearing housings etc.

Repair/refurbish Scope of work

The information gathered during the strip and access will determine the scope of work to repair, refurbish or re-manufacture of the gearbox.

A repair, refurbish or re-manufacture QCP should be compiled and send to Eskom for approval by Engineering and maintenance to ensure that the required hold- and witness points are clear.

1.2.9 The For a re-manufactured (New) gearbox, the following items will be included in the scope of work and supply:

- a. Replacement of all gears.
- b. The replacement of all rolling element bearings.
- c. The replacement of all nuts and bolts.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

- d. If used, the re-lining of all journal bearings and thrust plates.
- e. Re-boring the bearing sleeves after skimming the joint faces.
- f. Machining, Re-lining and boring of bearing sleeves if required.
- g. Replacement of all keys and re-cutting of all keyways if required.
- h. Gearbox casing internals to be coated with a zinc-based primer and suitable epoxy coating. The *Supplier* must submit details of the proposed coating and method along with material data sheets to Eskom's corrosion specialists for approval.
- i. New nameplate fitted indicating the date of manufacture, order number, power rating, gear ratio, lubricant specification and other relevant technical details shall be fitted to the casing exterior. All original nameplates shall not be removed.

1.2.10 For a refurbished gearbox, the following items will be included in the scope of work and supply:

- a. Replacement of all damaged gears. Old gears mating with new gears will have to be re-ground to restore the gear profile.
- b. If a gear/shaft assembly has been dismantled, the regrinding of the gear to ensure concentricity.
- c. The replacement of all rolling element bearings for gearboxes in which bearings have exceeded 50% of their L10 design life. These items should ideally be replaced during a refurbishment as their cost is far less than the risk of a premature gear failure as a result of a bearing failure.
- d. The replacement of all damaged nuts and bolts.
- e. Re-boring the bearing sleeves after skimming the joint faces.
- f. Machining, re-lining and boring of bearing sleeves if required.
- g. Replacement of keys (should be taped to the shafts) and re-cutting of keyways if required.
- h. Replacement of breathers and breather pipes.
- i. Verification of dipstick lengths and replacement if missing or incorrect.
- j. Replacement of missing fans and fans covers installed on gearboxes
- k. Gearbox casing internals to be coated with a zinc-based primer and suitable epoxy coating. The *Supplier* must submit details of the proposed coating and preparation method along with material data sheets to Eskom's corrosion specialists for approval.
- l. New nameplate fitted indicating the date of manufacture, order number, power rating, gear ratio, lubricant specification and other relevant technical details shall be fitted to the casing exterior. All original nameplates shall not be removed.
- m. In the case of a Geared Motor, the motor would need rewiring and new motor bearings or motor replacement.

Repaired gearboxes:

For a gearbox requiring repairs, the items requiring repair or replacement will depend on the nature of the failure and the extent of the resultant damage.

1.2.11 Quality Assurance Tests, Inspections and Documentation

The following documentation, inspections and tests are required when re-manufacturing, refurbishing, or repairing a gearbox.

- a) Gearbox history and design

If no drawing/s exists for the gearbox and its components, the *Supplier* shall include the cost of the drawings separately in his quotation. The relevant drawing numbers must be reflected on the quality control plans.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

b) Production Schedule and Quality Control Plans (QCP's):

The *Supplier* shall submit to Eskom detailed quality control plans for the remanufacture, refurbishment or repair of the gearbox. QCP's should include QCP's for the manufacture or repair of individual components. The *Supplier* should also provide a time-based production schedule to Eskom prior to starting work.

		TUTUKA POWER STATION QUALITY CONTROL PLAN										UNIQUE IDENTIFIER		MNT QIP F 194				
												DOCUMENT TYPE		TUTUKA FM				
												REVISION		2				
												DOCUMENT NUMBER						
												EFFECTIVE DATE		JUNE 2023				
				NEXT REVIEW DATE		JUNE 2026												
Item/Material/Plant:				Task Description / SOW														
Section:				Unit				QCP No.										
Contractor Name:				KKS No.														
Legend:		IP - Intervention Point		I - Inspection		S - Surveillance		R - Review		W - Witness		H - Hold		Date:				
Act No	Description of Activity	Specification/ Procedure/ Acceptance Standard	Artisan/Technician			Contractor QC/Supervisor			Eskom Representative			Eskom Engineer			Eskom QC/AIA			
			IP	Sign	Date	IP	Sign	Date	IP	Sign	Date	IP	Sign	Date	IP	Sign	Date	
				PREPARED BY			ACCEPTED BY											
				Artisan/Technician			Contractor QC/Supervisor			Eskom Representative			Eskom Engineer			Eskom QC/AIA		
		Name:																
		Signature:																
		Date:																
1	Obtain PTW			H			R			R			R			R		
2	Risk Assessment			H			R			R			R			R		
3																		
4																		
				PREPARED BY			APPROVED BY											
				Artisan/Technician			Contractor QC/Supervisor			Eskom Representative			Eskom Engineer			Eskom QC/AIA		
		Name:																
		Signature:																
		Date:																

1.2.12 Checks and documentation required on the casing:

- MPI report on bearing bores and mounting feet.
- Dye Penetrant Report on Casing.

1.2.13 Checks on gears

- Material certificates for all new gears.
- Heat treatment certificates of castings and forgings.
- Mechanical test report (tensile strength).
- Microstructure report
- Lead, pitch and profile measurements for new and re-ground gears.
- Dimensional inspection versus drawing.
- Hardness checks on finished gears and forgings.
- MPI certificates for all gears.
- Heat treatment certificates for all new finished gears.
- Stamp identification on gears.
- Check and record contact pattern, backlash and shaft end float.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors**1.2.14 Checks and documentation required for shafts:**

- a. Material certificates for new shafts and keys.
- b. Stamp identification on shaft ends.
- c. Check for looseness of gears on shafts.

1.2.15 Information required on bearings:

Bearing numbers, bearing clearance and brand name for all replaced bearings.

1.2.16 Nameplate requirements:

An additional - new nameplate fitted indicating the date of manufacture, order number, power rating, gear ratio, lubricant specification and other relevant technical details shall be fitted to the casing exterior. All original nameplates shall not be removed.

1.2.17 No load testing:

Vibration levels and temperatures shall be checked under “no-load” conditions and the results recorded for Eskom. Note that the Siemens bucket elevator Geared Motors need to be test run in a vertical position. The motor currents and vibrations need to be measured during test running.

1.2.18 Surface and corrosion protection

The *Contractor* shall submit details of corrosion protection measures to protect the gears and casing from deterioration during storage. If a gearbox is to be stored dry for a long period, the use of vapour phase inhibitors (VPI's) or vapour corrosion inhibitors (VCI's) is recommended.

1.2.19 Transportation

Gearboxes and geared motors should be transported in such a manner as to prevent damage to the bearings or other gearbox/motor components and to prevent the ingress of dirt or moisture during transportation. The gearboxes and geared motors should be prevented from turning during transportation.

1.2.20 Packaging / Crating

- a) The *Contractor* shall be responsible for the packaging of all Spares delivered to the *Employer* – Main Stores.
- b) All the spares supplied shall be preserved for a short to medium term storage (2 to 5 years)
- c) All packaging within sealed containers shall be witnessed by the *Employer* prior to being sealed.
- d) All packaging within sealed containers shall have an inspection sheet that is signed and accepted by the *Employer*. This inspection sheet shall affixed externally and permanently be attached on the container.
- e) A signed and approved copy of the data book(s) shall be included in the sealed container
- f) The sealed containment device shall externally indicate whether stacking is permitted. If permitted the maximum allowed stacking weight should be clearly indicated including the stacking load direction.
- g) Packaging should be designed to enable lifting capability via overhead crane and forklift.
- h) The Gross packaging weight shall externally be stated on the sealed container.

1.2.21 1 Delivery to Site

- a) The *contractor* shall be responsible for the transportation of all Spares delivered to the *Employer* – Main Stores and also all spares removed from the *Employer's* site

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

1.2.22 Marking the goods

- a) All delivered components shall be engraved with the relevant article and project number.
- b) All components that are packaged within a sealed container shall have the following:
 - o A detailed list of all the components within the container. This should include a description, article number, project number and quantities
 - o A photograph of each component

1.2.23 Constraints at the delivery site and place of use

- a) The *Employer* will determine the offloading point and time
- b) Forklift/overhead crane with driver/operator will be supplied for offloading
- c) Delivery must include quality certificates, manuals, and packing lists before offloading.
- d) Pre-delivery notification required 48 hours prior delivery to site

1.2.24 Specification of the services to be provided

- a) Specification of services to be provided are under heading 2 in the service information

1.2.25 General Requests

- a) All PPE to be provided by *Contractor*.
- b) Attendance of meetings "as and when" required by the *Employer*.
- c) Risk assessments must be completed before each task.
- d) The *Employer's* Lifesaving rules to adhere to.
- e) Will comply within the *Employer's* QC Standard's.
- f) Site conditions will be according to the *Employer's* and Safety regulations standard's
- g) All telephone accounts on *Contractor* account
- h) Quality control plan and Contract Quality plan Approval Process standard as per QM-58The
- i) *Employer's* transport procedures to be adhered to.
- j) The *Contractor* will familiarize himself with the plant and the dangers / hazards of obstacles in the vicinity, as the *Employer* will not be liable for any occurrence that can lead to a compensation event.
- k) All tools and electrical equipment must be inspected regularly and filed as per the OHSACT requirements.
- l) The *Service Manager* will verify that the work performed as per Assessment is in fact a true reflection of work performed. Support documentation will be required from the Contractor.
- m) All services must be done according to the *Employer's* standards and procedures
- n) *Contractor* to collect spares at the *Employer's* site
- o) Non – performance *Contractor* will be monitored – NCR / PIR and the NEC (Instructions, Early warning and Notifications) rules will be issued accordingly and applied
- p) Deliveries might be required after hours as requested by *Service Manager*

1.3 Interpretation and terminology

1.3.1 Definitions

Definition	Explanation
As new", re-manufactured, rebuild or fully overhauled gearboxes	Gearboxes and Geared Motors subjected to a complete overhaul and fitted with a complete set of new internal components meeting all the original design criteria and subject to the same quality assurance requirements as a new gearbox or geared motors.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Definition	Explanation
Classification	Controlled Disclosure: Controlled Disclosure to external parties (either enforced by law, or discretionary)
Competent person	(OHS Act) means any person having the knowledge, training, experience, and qualifications, specific to the work or task being performed, provided that, where appropriate, qualifications and training are registered in terms of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995)
Components or items	Refers to casings, gears, shafts, keys, bearings, lubrication systems, dowel pins, nuts, bolts, covers, dip sticks, breathers, seals, and any other item required to complete the gearbox assembly.
Contractor	In relation to this document, where the word "Contractor" is used, it will mean all or some of the following: principal Contractors, appointed Contractors, suppliers, vendors, service providers and consultants
<i>Employer</i>	(OHS Act) means, subject to the provisions of subsection (2), any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him/her, but excludes a TES (ex-labour broker) as defined in section 1(1) of the Labour Relations Act 1956 (Act No. 28 of 1956)
Environment	(32-94) means: the land, water, and atmosphere of the earth; micro-organisms and plant and animal life; and any part or combination of (a) and (b) and the interrelationships among and between them, and the physical, chemical, aesthetic, and cultural properties and conditions of the foregoing that influence human health and well-being
Eskom requirements	Eskom requirements flowing from directives, policies, standards, procedures, specifications, work instructions, guidelines, or manuals
Hazard	(OHS Act) means a source of, or exposure to, danger
Health and safety plan	(OHS Act) means a document plan that addresses hazards identified and includes safe work procedures to mitigate, reduce, or control hazards identified
Health and safety requirements	Means comprehensive health and safety requirements for a contract, project, Site, and scope of work. This specification is intended to ensure the health and safety of persons, both workers and the public, and the duty of care to the environment. The health and safety requirements must be specific to each contract, project, Site, and scope of work
Lifesaving Rules	(240-62196227) a rule that, if not adhered to, has the potential to cause serious harm to people
Method statement	(OHS Act) means a written document detailing the key activities to be performed to reduce, as reasonably as practicable, the hazards identified in any risk assessment
Near miss	A near miss is an OHS event that did not result in human injury or damage but had the potential, under different circumstances, to cause human injury or property damage. This includes the reporting of hazards or unsafe conditions.
Original Equipment Manufacturer (OEM):	The company responsible for the design and manufacture of the original gearbox, including all its components.
Pre-job brief or meetings	(34-227) means a meeting that is held prior to the commencement of the day's work and that is attended by all the relevant employees associated with the work task
Refurbished gearboxes:	Gearboxes and geared motors where work is carried out on the gearbox and motor to restore the gearbox and motor as close as possible to original performance requirements. Such work includes replacement of selected working components and/or work on/or repair to selected items.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Definition	Explanation
Replacement gearboxes	Gearboxes and motors in which specific items which have failed or considered to have failed or reached the end of their design life have been replaced.
Risk assessment	(OHS Act) means a programme to determine any risk associated with any hazard at a Construction Site to identify the steps needed to be taken to remove, reduce, or control such hazard.
Site	(34-228) means an Eskom department, unit, complex, building, specific project, work site, or the site where agents, clients, principal <i>Contractors</i> , <i>Contractors</i> , <i>Suppliers</i> , vendors, and service providers provide a service to Eskom, directly or indirectly
Supplier or manufacturer:	The company responsible for carrying out the repair, refurbishment or overhaul of a gearbox
Task	(34-227) a segment of work that requires a set of specific and distinct actions for its completion

1.3.2 The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
B-BBEE	Broad Based Black Economic Empowerment
BFPT	Boiler Feed Pump Turbine
BHM	Bulk Handling Material
CIDB	Construction Industry Development Board
COC	Certificate of Compliance
CPA	Cost Price Adjustment
CSY	Coal Stock Yard
CW	Cooling Water
DHP	Dust Handling Plant
ISO	International Organization for Standardization
LAR	Local Access Register
LH	Left Hand
MPI	Material Positive Identification
NDT	Non-Destructive Testing
OEM	Original Equipment Manufacturer
OHSACT	Occupational Health and Safety Act
PIR	Performance Improvement Report
PPE	Personal Protective Equipment

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

PPPFA	Preferential Procurement Policy Framework Act
PS	Power Station
QC	Quality Checks
QCP	Quality Control Plan
QMS	Quality Management Systems
RH	Right Hand
SABS	South African Bureau of Standards
SACPCMP	South African Council for the Project and Construction Management Professions
SAMTRAC	Safety Management Training Course
SAP	System Application Product
SOW	Scope of work
TBA	To Be Announced
TBC	To Be Confirmed
VAT	Value added Tax
VCI	Vapour Corrosion Inhibitors
VPI	Vapour Phase Inhibitors
YTD	Year to date

2 Management strategy and start up.

2.1 The Contractor's plan for the service

- To be discussed before each task can be carried out between the *Contractor* and *Employer*
- Programme to be supplied within two days of receiving the Order
- The *Contractor* can start work after the Purchase Order and Task order has been issued, unless given Instruction by the *Service Manager*

2.2 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick-off Meeting	Once off meeting Within 1 week of contract start date	Tutuka Power Station	<i>Service manager, contractor supervisor and all necessary personnel</i>
Risk Register and compensation events	As and when required	Tutuka Power Station	<i>Service manager, contractor supervisor and all necessary personnel</i>
Overall contract	Monthly	Tutuka Power Station	<i>Service manager,</i>

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

performance progress and feedback	Time to be confirmed by service manager		<i>contractor supervisor and all necessary personnel</i>
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Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *service*. Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

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

- Attendance of meetings as required by *Service Manager* Such as
 - a) Any meeting requested by the *Employer* or *Contractor*
 - b) All Assessment meetings
 - c) Prioritisation meetings
 - d) Early warning/Risk mitigation meetings

2.3 Contractor's management, supervision and key people

- a) The *Contractor* provides the Key People listed in the Contract Data.
- b) The *Contractor* does not replace a Key Person unless the *Service Manager* has accepted the replacement.
- c) The *Contractor* ensures all Key People remain competent and suitably experienced to carry out the service.
- d) The *Contractor* provides adequate supervision of the service as necessary to ensure compliance with the Service Information, statutory requirements, and health and safety regulations.

2.4 Provision of bonds and guarantees

- a) Not Applicable for this contract

2.5 Documentation control

- a) Each instruction, certificate, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form, which can be read, copied, recorded, and filed.
- b) Written in the Language of this contract.
- c) All reports to be discussed, compiled, and handed to the *Employer* 's Supervisor and *Service Manager*
- d) All communications must be printed and filed in the *Service Managers* file
- e) All communication and documentation to be shared with the relevant end user

2.6 Invoicing and payment

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

The *Contractor* shall address the tax invoice to

_____ and include on each invoice the following information:

- a) Name and address of the *Contractor* and the *Service Manager*.
- b) The contract number and title.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

- c) *Contractor's* VAT registration number.
- d) The *Employer's* VAT registration number 4740101508.
- e) Description of service provided for each item invoiced based on the Price List.
- f) Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.
- g) Purchase order number
- h) CPA calculation sheet and the Invoice for CPA (with the GL Account Number and the Cost Center on the Invoice) to be send to the financial department as per the *Employer* Invoicing procedure / instruction. Invoices and a Copy of the Assessment with a Service Entry number to be send to the financial department as per the *Employer's* Invoicing procedure / instruction

2.7 Contract change management

- a) Changes shall be identified early through Early Warnings, allowing the *Service Manager* and *Contractor* to discuss risks and agree mitigation strategies before they impact cost, time, or service quality.
- b) Changes that lead to a compensation event will be notified and assessed by the *Service Manager*
- c) The *Contractor* submits a quotation detailing cost and time impacts, which the *Service Manager* reviews, accepts, or reassesses.
- d) Once agreed, the change is formally implemented through adjustments to the Task Orders

2.8 Records of Defined Cost to be kept by the *Contractor*

- a) *Contractor* to keep record of all defined costs and submit all records when requested by the *Employer*

2.9 Insurance provided by the *Employer*

- a) Refer to contract data Clause Z12 & to Contract Data section 8.

2.10 Training workshops and technology transfer

- a) All *Contractor* personnel to do Induction Training before entering *Employer's* site

2.11 Design and supply of Equipment

- a) The *Contractor* supplies all parts, materials, and components required for the refurbishment of gearboxes

2.12 Things provided at the end of the *service period* for the *Employer's* use**2.12.1 Equipment**

At the end of the service period the *Contractor*

- a) returns to the Employer, equipment and surplus Plant and Materials provided by the Employer,
- b) provides items of Equipment for the Employer's use as stated in the Service Information and
- c) provides information and other things as stated in the Service Information.

2.12.2 Information and other things

- a) All Reports / Documents to be compiled, filed, discussed, and handed over to the *Employer* (will be announced by *Employer*) and at the end of the service.
- b) On Completion of contract the *Contractors* safety file will be hand over to the Service Manager and will be saved for 40 Years after completion / termination of the contract

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

- c) *Contractor* is Responsible to ensure that his Letter of Good standing is always valid as stipulated in the construction regulations point 7 (C) (iv) and the specifications 2.5.2 (iv) and 3.10 *Contractor* will not be allowed on site if his letter of good standing is not valid
- d) As per clause 70.2 to provide other things as stated in the Service Information
- e) The *Contractors* Health and safety file is to be submitted for approval to the *Employer* 's Safety Officer before contract commencement and must be kept up to date at all times

2.13 Management of work done by Task Order

- a) A Task order is the instruction to commence work
- b) No work shall commence until Task order is issued and a Purchase Order number has been finalised and accepted and signed by both the *Employer* and *Contractor*
- c) Completion certificate to be issued after task on each Task order is completed and Assessment certificate to be completed.
- d) All work will be issued as per Task order.

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

- The *Contractor* shall comply with the health and safety requirements contained in Annexure SHE Specification 14RISK SRM – 084 to this Service Information.

- a) All The *Employers* health and safety procedures and regulations to be adhered to by the *Contractor*
- b) A SHEQ file to be handed in at the SHEQ department for approval prior to work commencement and kept up to date for the duration of the contract

SHEQ Policy

Eskom SHEQ Policy

The *Employer* has made a commitment to conduct business with respect and care for people, the environment and assets and that no operating condition or urgency of service justifies exposing anyone to negative risks arising from the *Employer's* business.

Compliance with the *Employer's* SHEQ Policy and applicable regulations is the responsibility of every employee and *Contractor*.

Contractor SHEQ Policy

All *Contractors* shall have an OHS policy signed by the CEO of the *Contractor* and prominently displayed where employees normally report for duty.

Signed copy of the OHS policy shall form part of the SHEQ file.

SHE PLAN REQUIREMENTS: -

- a) Principal *Contractors* shall develop a suitable and sufficiently documented site specific SHE plans, based on the scope of work and client SHEQ specification.
- b) The SHE plans must be pre-approved by the client for implementation. The principal *Contractor* / *Contractor* has a responsibility to send the SHE plans to the client for approval prior to commencement of work.
- c) The SHE plans must be applied from the commencement of and for the duration the construction work, which must be updated / reviewed as the work progresses / changes.

When a principal *Contractor* intends appointing *Contractor*, the principal *Contractor* shall ensure that the *Contractor* provides and demonstrate a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the client's SHEQ specifications and scope of work

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors**3.1.1 Health and Safety Arrangements**

The *Contractor* ensures that all his personnel attend a Health and Safety Induction Course prior to contract starting date, and annual re- induction. The Induction Course is presented by the *Employer's* Safety Risk Department at Tutuka Power Station. Arrangements are made with Safety Risk Management, by the *Contractor*.

The *Employer's* Safety Risk Manager visits and inspects the *Contractor's* workplace or site yard and the working areas to ensure that tools; machinery and Equipment comply with the minimum safety requirements.

The *Service Manager* may instruct the *Contractor* to stop work, where the *Contractor's* personnel fail to conform to safety standards or contravene health and safety regulations. Such stop-work order is not a compensation event. The *Service Manager* may instruct the *Contractor* to discipline his employees and to submit a disciplinary action report to the *Service Manager*. The *Contractor* implements additional health and safety precautions where necessary.

Health and safety

The *Contractor* complies with the Occupational Health and Safety Act 85 of 1993, as well as per the *Employer's* procedure as stipulated below:

- a) SHEQ Policy 32-727
- b) The *Employer's* Procurement and Supply Chain Management Procedure 32-1034
- c) SHE Requirements for the *Employer's* Commercial Process 32-726
- d) *Contractor* Health and Safety Requirements 32-136
- e) Integrated SHE Organization, Roles and Responsibilities and Statutory Appointments 32- 296
- f) Live-saving Rules 240-62196227
- g) Working at Heights 32-418
- h) The *Employer's* Vehicle Safety Specifications 32-345
- i) Tutuka *Contractor* SHEQ Specifications 14RISK SRM - 084

Site Regulations and Procedures**Site Regulations**

The latest revision Tutuka Power Station Site Regulations form part of this contract.

Copies of these procedures are available on request.

(Any additional site regulations implemented will be applicable)

Safety risk management

"Standard for health and safety at Tutuka Power Station - requirements to be met by *Contractors*".

Vehicle and driver safety

All drivers, passengers and pedestrians must obey vehicle safety requirements in terms of the National Road Traffic Act, Act No 93 of 1996, as amended, including other relevant provincial or local requirements.

Speed Limit

All vehicles must be driven with due consideration for personnel and property. All speed limits will be adhered to on the premises at all times.

Transportation of passengers: open LDV's:

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

With effect from 31 May 2006 no *Employer* employee or *Contractor* would be allowed to transport passengers on the back of open light delivery vehicles (LDV's). It is a legal requirement to provide safe transportation of the *Employer* and *Contractor* employees – therefore the following will be enforced:

The *Employer's* Life Saving Rules:

Five Life Saving Rules have been developed that will apply to all the *Employer's* employees, agents, Consultants and Contractors.

- a) Rule 1: Open, Isolate, Test, Earth, Bond, And / Or insulate before touch - that is any plant operating above 1 000 V.
- b) Rule 2: Hook up at heights - no person may work at height where there is a risk of falling.
- c) Rule 3: Buckle up – no person may drive any vehicle for the *Employer's* business and/or on the *Employer's* premises: unless the driver and all passengers are wearing seat belts.

The *Employer* takes a "ZERO TOLERANCE" attitude to drivers and passengers who do not wear safety belts when driving in a vehicle for the *Employer's* Business and / or on the *Employer's* premises. The violation of this very important safety rule as well as any safety rule while performing work for or on behalf of the *Employer* may result in the *Employer* terminating your obligation to perform work in terms of your contract with the *Employer*.

All occupants must wear their safety belts properly and must never put the shoulder belt under their arm or behind their backs. Drivers and all passengers must buckle-up at all times for the sake of themselves and their families.

- d) Rule 4: Be sober (no person is allowed to work under the influence of drugs and Alcohol).
- e) Rule 5: Use a permit to work – where an authorization limitation exists, no person shall work without the required permit to work.

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

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

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

Do safety audits at the *Contractor's* premises, its workplaces and on its employees.

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

Issue the *Contractor* with a work stop order or a compliance order should *Employer* become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures by the *Contractor* or any of its employees, sub-Contractors or agents.

The *Contractors* Health and safety file is to be submitted for approval to the *Employers* Safety Officer before contract commencement.

All work stoppages called by the *Employer* to be adhered to

Contractor is Responsible to ensure that his Letter of Good standing is valid at all times as stipulated in the construction regulations point 7 (C) (iv) and the specifications 2.5.2 (iv) and 3.10 *Contractor* will not be allowed on site if his letter of good standing is not valid

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors**3.1.2 First aid and fire fighting**

Adequate first aid and firefighting equipment to be provided by the *Employer*, But the *Contractor* is responsible to provide its own fire extinguisher for their own cabins.
All *Contractor* personnel must have First aid and firefighting training.

3.1.3 Fire Precautions

Any tampering with the *Employer's* fire equipment is strictly forbidden.

All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards is kept free of obstruction and are not used for work or storage at any time. Firefighting equipment must remain accessible at all times.

The *Contractor* takes the necessary action to safeguard the area to prevent injury and the spreading of the fire.

3.1.4 Security, fire protection and safety

The *Contractor* shall be responsible for ensuring the security of the works, and of his plant, equipment and materials. To that end he shall make adequate provision for access control, lighting and watchman to the works where required.

3.1.5. Fire protection

The provision of the *Employer's* standard NWS 1494 "Fire Prevention and Protection of *Contractor's* premises at New Works sites" shall be applicable.

3.1.6 Safety and incident prevention

The *Contractor* shall implement and maintain an active Site Safety and Accident Prevention Programme in accordance with the Tutuka SHEQ Specifications. The overriding regulations will however be the Occupational Health and Safety Act.

Incident Management, Corrective & Prevention Action Procedure to be adhered to – 14Risk IM PC-019

3.1.7 Reporting of accidents

The *Employer* follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The *Contractor* is expected to fully co-operate to achieve this objective. The *Service Manager* must be informed immediately of any incidents. A written report to be submitted to the *Employer within 24 Hours* of incidents and any damage to property or equipment

NOTE! This report does not relieve the *Contractor* of his legal obligations to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

3.1.8 Occupational Health and Safety Act 85 of 1993 – SECTION 37

In accordance with Section 37 (2) of the Act, the *Contractor* is appointed by the *Employer* as mandatory to assume Health and Safety duties and responsibilities. The *Contractor* ensures compliance with all requirements of the Act and any instruction or notification that enhances those requirements.

The *Contractor* acknowledges that he is fully aware of all the requirements of the Occupational Health and Safety Act and undertakes to employ only staff who have been duly authorised in terms thereof and who receive sufficient safety training to ensure that they can comply therewith.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

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

3.1.9 The *Contractor* appoints a person who liaises with the *Employer's* Safety Officer, responsible for the premises relevant to the Contract. The person appointed shall on request:

- a) Supply the *Employer's* Safety Officer with copies of minutes of all Health and Safety Committee meetings, whenever required.
- b) Supply the *Employer's* Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall notify the *Employer's* Safety Officer of any changes thereto.

The *Employer* may, at any stage during the duration of this contract:

- a) perform safety audits at the *Contractor's* premises, its workplace and its employees.
- b) refuse any employee, *Subcontractor* or agent of the *Contractor* access to its premises if such person is found to commit any unsafe act or any unsafe working practice or is found not to be duly authorised nor qualified in terms of the Act.
- c) Issue the *Contractor* with an instruction to stop work should the *Employer* become aware of any unsafe working procedure or condition or any non - compliance with the Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 85 of 1993 and all Regulations made hereunder as well as all the *Employer's* Safety and Operating Procedures. Any such instruction is not a compensation event. Furthermore, no amendments to the act or the Regulations or reasonable amendment to the *Employer's* Safety and Operating Procedures will entitle the *Contractor* to claim any additional costs or time incurred in complying therewith, from the *Employer*

3.1.10 Safety Regulations of the *Employer*

The *Contractor* conforms to the *Employer's* Plant Safety Regulations

The *Employer* makes available to the *Contractor*, on request, a copy of the latest revision of the Plant Safety Regulations.

3.1.11 Barricading / Screens and Scaffolding:

The *Contractor* shall provide and install fixed barricades and warning devices to ensure that equipment and people are not exposed to danger or to prevent access to dangerous areas.

The *Employer* will supply scaffolding if not stated differently in the Works Information. Arrangements of such must be made at least one- (1) week in advance by the *Contractor*. (Tampering of any approved scaffold is not allowed for any adjustments – The *Service Manager* should be notified of any adjustments.)

3.2 Environmental constraints and management

The *Contractor* shall comply with the environmental criteria and constraints stated in the following: -

All waste from the project must be disposed in a sound environmental manner in accordance with Tutuka Power Station Waste Management Procedure 14 Risk ENV-013. Oil spillages must be contained and cleaned as per Oil Spill Management procedure 15 ENPRENV-001. The project must conform to the *Employer's* Environmental Legal and other Requirement's procedure 14 Risk ENV-012 and the project must conform to Tutuka Power Station ISO14001 Standard with reference to Tutuka Power Station's Environmental Management System Manual 14 Risk ENV-010. All environmental incidents must be dealt with as per the Station's Incident Management, Corrective and Preventative Procedure 14 Risk PC-001 and all environmental incidents must be reported to the Environmental Department on site.

3.3 Quality assurance requirements

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

The *Contractor* to conform to ISO 9001:2015 requirements (Quality Management System). *Contractor* is bound to conform to Eskom documented information such as procedures (Control of non-conforming output products and services), policies etc
Contractor to ensure all quality checks are done prior dispatch of components and where needed proof to be provided to the client.

For safe keeping of components packaging must be accordingly and manuals must be part of deliveries so that client will know how to preserve items

Contractor to deliver according to client specification. Where ITP (Inspection Tests Plans) are required, supplier to submit all test results to the client

Quality control on components to be done by the end user, to confirm components received was based on the specification given

Contractor to conform to QM58- *Contractor* Quality Management Specification, where possible or needed the *Contractor* might be audited by the client or in any external party that will be auditing Eskom-Tutuka Power Station. Supplier might be subjected to internal and external audit

To determine level of conformance supplier to submit required documented information according to Category two (2)

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed

All personnel to be trained and qualified to perform scope as required

4.1.2 BBBEE and preferencing scheme

- a) As per clause Z3 within contract data

4.1.3 Procurement Requirements:

4.2 Subcontracting

4.2.1 Preferred subcontractors

Not Applicable

4.2.2 Subcontract documentation, and assessment of subcontract tenders

4.2.3 Limitations on subcontracting

As per SDL&I requirements

4.2.4 Attendance on subcontractors

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Not Applicable

4.3 Plant and Materials**4.3.1 Specifications**

- a) The *Employer* to approve QCP prior to work execution and sign off the required interventions as per QCP. *Contractor* to approve all steps within QCP for the execution of the work.
- b) All materials supplied must have supporting documentation: CoC, test certificates

4.3.2 Correction of defects

- a) The *Contractor* corrects Defects within the defect's correction period on the contract data unless otherwise agreed by both parties

4.3.3 Contractor's procurement of Plant and Materials

- a) The *Contractor* is responsible for procuring all plant, tools, equipment, and materials required to refurbish gearboxes in accordance with the Service Information

4.3.4 Tests and inspections before delivery

1. All refurbished and new components are to be Quality Checked and tested as per the quality control document which has been approved by the *Contractor* and *Employer*.

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

- a) The *Contractor* is responsible for receipt, storage, handling, and installation of free-issue items.
- b) Any loss, damage, or improper use of free-issue items shall be treated as a Defect or Compensation Event in accordance with the NEC TSC.
- c) The *Contractor* shall maintain records of all free-issue items and submit usage reports to the Service Manager."

4.3.6 Cataloguing requirements by the Contractor

Not Applicable to this contract

5 Working on the Affected Property**5.1 Employer's site entry and security control, permits, and site regulations**

- a) Lifesaving rules and all the *Employer* 's procedures to be adhered at all times
- b) Access is limited and controlled by Plant Safety Regulations requirements.
- c) No employee will be allowed to access the plant or to work without access permit issued.
- d) All personnel to have an Identification card at all times
- e) Unauthorized access to site is prohibited.
- f) All activities to comply with the OSHACT and Regulations.
- g) All activities on plant must be preceded by a plant risk assessment – Risk assessment as per the *Employer's* standard, to be current at all times (Live Document)
- h) All equipment leaving the *Employer's* premises must be authorized by means of an permit to allow it to be taken of site

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

- i) *Contractor* on site must supply a SAPS clearance certificate to the *Employer* before contract start and every 12 months thereafter for all *Contractor's* employees to ensure continued access to site. This will also be handed in to security for *Contractor* to obtain access permits.
- j) **Acceptance of this tender is subject to the condition that both the contracting company's management and its employees will provide Eskom with a clear criminal record not older than thirty (30) days from a reputable screening company. If the principal *Contractor* appoints a subcontractor, the same provisions and measures will apply to the subcontractor. Acceptance of the tender is also subject to the condition that the *Contractor* will implement all such security measures for the safe performance of the work as required in the scope of the contract**
- k) ***Contractors* are to submit proof of verification record(s) (Security clearance) from SAPS or accredited supplier linked to SAPS AFIS system not older than thirty (30) days, as part of Risk Management process in order to curb any threats against the Installation. It is compulsory for these documents to be submitted to Security for verification before access to site is granted. Only individuals with clear criminal records will be considered.**
- l) ***Contractors* are required to submit the SAPS Clearance Certificate obtained by the employee along with a copy of his/her Identity Document or Passport to the site Security Manager. The Security Manager is required to verify the authenticity of the CRC Certificate with SAPS and to cross reference the employee seeking access against known HR databases and site databases to determine if the employee in question has in the past participated in disruptive labor actions and if the individual was dismissed from Eskom and the reason for such dismissal. Every employee applying for access must be evaluated as an individual and subsequent finding recorded. A risk analysis of the employee profile indicating whether the employee is a risk to the installation must be completed. Any risk rating allocated above a level III will be deemed unsuitable.**
- m) **The process shall be repeated every 12 months for low-risk employees (Risk Rating 5, 4) and every 6 months for medium to high-risk employees**

5.2 People restrictions, hours of work, conduct and records

- a) Working hours is the *Employer's* working hours
Monday to Thursday 07:00-16:15
Friday 07:00-12:00
- b) The *Contractor* must deliver the components between 08:30 to 15:30 Mondays to Thursdays and 8:30 to 11:30 on Fridays. No deliveries to be done on weekends unless prior arrangements done with the *Contractor / Employer*

5.3 Health and safety facilities on the Affected Property

- a) Medical Station and relevant staff on Site.
- b) Each workshop has a first aid box available.
- c) Yearly induction for all personnel.
- d) In an emergency the contract supervisor and *Service Manager* must be notified immediately.

First aid centre

The *Contractor* provides a first aid service to his employees and *Subcontractors*. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer's* medical centre and facilities are available.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Outside the *Employer's* office hours, the *Employer's* first aid services are only available for serious injuries and life-threatening situations.

The *Employer* is entitled, however, to recover the costs from the *Contractor* for the use of the above *Employer's* facilities.

5.4 Environmental controls, fauna & flora

Environmental management

- a) Proper care of the natural environment is important to prevent nuisance and environmental
- b) degradation.
- c) All *Contractors* shall comply with the *Employer's* environmental management procedures and
- d) Environmental legislation
- e) Environmental incidents shall be reported to the *Employer's* Environmental Department as per incident management requirements.

Waste Management

- a) Waste segregation is important to facilitate recycling of waste. Ensure waste is disposed of in the correct colour bin.
- b) The *Employer's* periodically collects waste from the bins for disposal in the correct manner.
- c) No waste should be burned or buried on site.
- d) Where the *Employer* and the *Contractor* have agreed that the *Contractor* is responsible for the disposal of its waste, the *Contractor* shall safely dispose of such waste and keep disposal certificates on file.

Types and colours of bins used on site:

- a) Yellow bin for domestic waste
- b) Orange bin for hazardous waste
- c) Maroon bin for scrap
- d) Green box for cartridges
- e) Blue box for recyclable paper

Radiation protection

The *Contractor* conforms to the *Employer's* procedure OMOP 2049 and OMOP 2051 when performing any industrial radiography.

Hazardous Substances

It is required in terms of the General Administrative Regulation (Regulation 7) of the Act that any manufacturer, importer, seller or supplier of hazardous chemical substances shall supply the receiver, free of charge with sufficient information for the user, to enable the user to introduce the necessary measures as regards the protection of the health and safety of persons. It is therefore the responsibility of the supplier (dealing directly with the *Employer*) to supply the information. If information is not available for whatever reason, the supplier must indicate and give reasons to the *Employer*.

Environmental management

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

The *Contractor* is required to ensure that all goods, services or works supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the Site, the goods, services or works supplied will also conform to *the Employer's* environmental specifications.

Handling of waste produced by the Contractor

All waste introduced to and/or produced on the *Employer's* premises, by the *Contractor*, for this contract, must be handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref.:BN0621-16296-5.

The *Contractor* is responsible to appoint a waste coordinator to ensure that all waste produced is handled according to the applicable legislation.

The *Contractor* is required to ensure that all goods, services or work supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the *Employer's* site, the goods, services or work supplied also conforms to the *Employer's* environmental specifications.

Waste from the cleaning and maintenance of equipment

The *Contractor* is responsible to contain all waste due to cleaning and maintenance of equipment and disposes of as described below.

Stockpiling of waste

Waste is removed promptly to the designated deposit areas. No stockpiling is permitted.

Hazardous waste

Waste declared as hazardous substances in terms of the Hazardous Substances Act no 15 of 1973 is the responsibility of the *Contractor* to ensure safe removal from the property to a registered Class 1 site

Pest Control

- a) Only approved herbicides with a low environmental risk shall be used for pest control.
- b) Only registered pest controllers may apply herbicides on a commercial basis.
- c) Application of herbicides shall be in accordance with the Fertilisers, Farm Feeds, and Agricultural Remedies and Stock Remedies Act 36 of 194.

Water Conservation

- a) Incidents related to water pollution must be reported to the *Employer's* environmental department within 24 hours.
- b) Report/fix leaking taps and pipes to save water.
- c) Use water sparingly.
- d) Chemical substances shall not be disposed of in wastewater or storm water drains.

Air Pollution

- a) Dust suppression measures must be in place to reduce airborne dust.
- b) Noxious and offensive odours arising from work activities shall be adequately controlled.
- c) Ground Pollution
- d) Measures to prevent or control ground contamination shall be put in place e.g. drip trays, bund walls.

Spill containment, clean-up and ground rehabilitation shall be done as per Tutuka procedures

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors**5.5 Cooperating with and obtaining acceptance of Others**

- a) The contractor shall cooperate fully with the employer, and any other relevant parties identified under this Contract to ensure the effective coordination and execution of the Services. This includes engaging in necessary consultations, attending coordination meetings, and providing all required technical and safety documentation for review.
- b) The contractor co-operates with the employer's team in ensuring that the goods are delivered in accordance with all requirements.

5.6 Records of *Contractor's* Equipment

- a) The *Contractor* shall maintain accurate and up-to-date records of all plant, tools, equipment, and instruments used in the refurbishment of gearboxes.
- b) These records shall include equipment identification, manufacturer, model/serial number, commissioning date, calibration or certification status, location, responsible personnel, maintenance history, and last inspection date.
- c) The *Contractor* shall make these records available to the Service Manager on request

5.7 Equipment provided by the *Employer*

- a) All rigging equipment to be provided by the *Employer*.

5.8 Site services and facilities**5.8.1 Provided by the *Employer***

Ablution facilities will be provided by Employer.

5.8.2 Provided by the *Contractor*

- a) *Contractor* to provide and ensure safe transportation services for all components and it shall comply with 32-93 and 32-345 procedures.
- b) All PPE to be provided by *Contractor* and for any weather / working conditions.
- c) Data pack to be provided on delivery.

Parking Facilities

No sheltered parking will be supplied

No *Contractor's* vehicles shall not be allowed to park in the plant for extended periods. The *Contractor's* vehicles will be allowed into the plant for loading and unloading of equipment and tools only.

No parking in restricted areas will be allowed.

Only reverse parking will be allowed

Protective Clothing

The *Contractor* shall provide, keep on site and maintain protective clothing conforming to the *Employer's* safety standards. PPE for all weather and plant conditions must be provided when required by the *Contractor*

Recruitment of General Labour

The *Contractor* recruits 100% of all new recruits, of general labour from Standerton local municipality, using the recruitment form provided by the Department of Labour. Contact details and application forms will be provided by the *Service Manager* on request.

In an event that new recruits are not from the defined Standerton municipality, the *Contractor* needs to provide proof that the local municipality could not provide proof of such individual.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

The *Contractor* needs to update the *Employer* as well as the Department of Labour, in the event that there is a staff compliment, e.g. Dismissal, resignation, etc.

The *Contractor* submits an updated monthly statistic on the 1st day of each month, using the reporting template that is provided by the *Services Manager*.

Local labour is not to be hired at the the *Employer's* Access gates.

Personal Protective Equipment

The *Contractor* supplies, maintains and ensures that his personnel at all times wear personal protective equipment as required per site.

Housekeeping

The *Contractor's* Equipment does not impair the operation of the plant or access to the plant.

Access permits

All applicable *Contractor* personnel shall be issued with access and vehicle permits (*Contractor* Permit) which will contain the following information:

- a) Name
- b) ID Number
- c) Company
- d) Validity date

All *Contractor* permits must be submitted to Protective Services when the workers leave the Site after Completion of the works.

The *Contractor* applies to the *Employer's* Protective Services for the issuing of permits.

The *Contractor* submits his application at least 24 hours prior to entering the Security area. This application form must be delivered to Protective Services, or can be faxed to (017) 749 9168

The form contains the following information:

- a) Employee Name.
- b) Employee ID Number.
- c) The *Employer's* Safety Co-ordinators signature.
- d) The *Employer's Service Manager's* signature.
- e) Copy of the first page of the ID book of every employee of the Contractor, photocopied to reduce the size to 65%.

The form is appended to the *Contractor's* Safety Manual, referred to in Section 2.3.2 (b).

The *Contractor's* visitors and personnel shall conform to the security arrangements in force at the Site at all times.

The Chief of Protective Services may, with valid cause, remove any of the *Contractor's* personnel from Site, either temporarily or permanently. He may deny access to the Site to any person whom, in the opinion of the said Chief of Protective Services, constitutes a security risk.

No unauthorized vehicles will be allowed on Site. Contract vehicle application should be directed to the *Service Manager*.

The *Contractor* will be limited to the working areas associated with the works. The *Contractor* is forbidden to enter any other areas and must ensure that his employees abide by these regulations.

Contract Title: Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

Parking inside the Power Station is allowed. The parking application must be addressed to the protective services. All *Contractors* will supply protective services with their vehicle's registration numbers.

No recruiting of casual labour may be done on the *Employer's* premises, including the area outside the power station security gate.

The *Contractor* obtains the access procedures, from the *Service Manager*, which may change depending on the prevailing security situation.

5.9 Control of noise, dust, water and waste

- a) All necessary and relevant PPE must be used at all time when entering site
- b) Risk assessments must be completed before commencing with any task to be current at all times (Live Document)
- c) All relevant procedures to be used at all times

5.10 Hook ups to existing works

- a) The *Contractor* shall provide all labour, materials, and equipment necessary to carry out hook-ups of refurbished gearboxes to the existing plant.
- b) All hook-up work shall comply with statutory, health, safety, and quality requirements.

5.11 Tests and inspections**5.11.1 Description of tests and inspections**

- a) The *Contractor* shall provide all equipment, instruments, and personnel necessary to conduct mechanical, electrical, and functional tests on refurbished gearboxes.
- b) All test equipment must be calibrated and certified.
- c) The *Contractor* shall record and submit test results, and promptly correct any defects identified during testing before handover to the *Employer*.

5.11.2 Materials facilities and samples for tests and inspections

- a) The *Contractor* shall provide all materials, facilities, and samples necessary for the *Employer* or Service Manager to carry out inspections and tests on refurbished gearboxes

6 List of drawings**6.1 Drawings issued by the *Employer***

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

- a) As per *Employer's* requirements.
- b) Available from system Engineer

Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

7 Appendix A – X17 – Low Service Damages

X17 LOW SERVICE DAMAGES				
ITEM	DESCRIPTION OF TASK	QUALITY OF PERFORMANCE	REASON FOR DAMAGES	DAMAGES TO BE IMPLEMENTED
Penalty	Late delivery	Delivery exceeding committed lead time	Committed delivery date not met	1% of task order value per day of delay limited to 10% of total task order value
Penalty	Reworks	Any work repeats due to poor workmanship	Delays in completion of task	2% of task order value to be charged per rework limited to 10% task order value
Penalty	Housekeeping	Clean condition of working place	Poor housekeeping	1% of task order value when housekeeping issues are identified limited to 10% task order value
Penalty	Report submission	Not submitting inspection and service reports on time	Delays in finalising the works	1% of task order per day limited to 10% task order value
Penalty	Defective component	Component not up to quality standard	Unacceptable component quality	Cost of Repairs and any damages incurred by supplier
Penalty	Incorrect component	Used component not rated for the intended application	Incompatible component	cost of Repairs and any damages incurred incurred by supplier

Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

8. Appendix B: Key Performance Indicators

item	KPA	Objective	Weight	Poor	Good	Excellent
				0	3	5
1	Task order Programme submission after contract award	To ensure program is submitted on time	10%	Late submission of programme	Submitted on time	Early submission
2	Reworks	To ensure that there are no reworks	20%	1 or more reworks in 6 months	No reworks in 6 months	No reworks in 6 months
3	SHEQ compliance	To ensure <i>Contractor</i> complies to all SHEQ related matters	5%	Non-Compliance	Compliant	Exceeding Expectations
4	Housekeeping	To ensure <i>Contractor</i> area is clean and housekeeping is always maintained	15%	Non-Compliance	Compliant	Exceeding Expectations
5	Defects	Period of operation with no defects	10 %	More than 1 defects within 6 months	1 defect in 6 months	No defects
6	Data pack	Ensure submission of data packs	15%	No submission of data pack	Submitted on time	Early submission
7	Customer satisfaction	100% satisfaction from the client	10%	Customer not satisfied with service	Customer satisfied	Exceeding customer expectations
8	Effectiveness	Overall gearbox effectiveness after refurbishment	15%	Poor performance of refurbished gearbox	Normal performance	Gearbox performance exceeding expectations

Refurbishment Gearboxes & Geared Motors and supply of new Gearboxes & Geared Motors

9. Appendix C: Risk register

Description of the risk		Action to avoid or reduce the risk
Risk event	possible outcome	Action to be taken and who in terms of the contract is responsible for taking it
Substandard quality of refurbishment	Reworks due to repeated failures	Implementation of rigorous inspection and testing procedures
Electrical hazard during motor disconnection	Injury /fatality	Enforce strict adherence to site safety regulations and procedures (PSR)
Delays in the refurbishment of gearboxes	Work delays	<i>Contractor</i> to submit a programme for refurbishment activities and ensure that it is approved by the <i>Employer or Service Manager</i>
Injury to personnel during work	Standing time and delays to work completion	Safety training; enforce PPE use; follow safe working procedures
Unexpected additional repairs	Work delays	Create a buffer in the task order program
Late delivery of gearboxes	work delays	Use of reliable logistics company