



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 LOW VOLTAGE MOTORS, AS STOCK ITEMS ON AN "AS AND WHEN" REQUIRED BASIS FOR A PERIOD OF FIVE YEARS AT KRIEL POWER STATION MAIN STORES.**

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CONTRACT No. [Insert at award stage]

PART C1: AGREEMENTS & CONTRACT DATA

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C1.1 Form of Offer & Acceptance

Offer

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

REFURBISHMENT OF LOW VOLTAGE MOTORS, AS STOCK ITEMS ON AN "AS AND WHEN" REQUIRED BASIS FOR A PERIOD OF FIVE YEARS AT KRIEL POWER STATION, MAIN STORES.

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

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

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

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

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

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*.

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

Eskom Holdings SOC Ltd, Megawatt Park, Maxwell Drive, Sandton, Johannesburg, 2199

(Insert name and address of organisation)

Name & signature of witness

Date

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

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

Note:

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

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

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

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

For the tenderer:

For the Employer

Signature _____

Name _____

Capacity _____

On behalf of *(Insert name and address of organisation)*

Eskom Holdings SOC Ltd, Megawatt Park, Maxwell Drive, Sandton, Johannesburg, 2199

Name & signature of witness _____

Date _____

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:	
	<div style="background-color: #cccccc; width: 100px; height: 20px; margin-bottom: 5px;"></div> dispute resolution Option	A: Priced contract with price list
	and secondary Options	W1: Dispute resolution procedure
	<div style="background-color: #cccccc; width: 100px; height: 20px; margin-bottom: 5px;"></div>	X1: Price adjustment for inflation
	<div style="background-color: #cccccc; width: 100px; height: 20px; margin-bottom: 5px;"></div>	X2: Changes in the law
	<div style="background-color: #cccccc; width: 100px; height: 20px; margin-bottom: 5px;"></div>	X17: Low service damages
	<div style="background-color: #cccccc; width: 100px; height: 20px; margin-bottom: 5px;"></div>	X18: Limitation of liability
		X19: Task Order
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Term Service Contract April 2013 ¹ (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.	+27 11 871 3706
	Fax No.	Not applicable
10.1	The <i>Service Manager</i> is (name):	Kgosi Ntsheroa
	Address	Eskom Holdings SOC Limited, Kriel Power Station, Generation, Group, Cluster 3 Ogies/Bethal Road, Kriel
	Tel	+27 17 615 2557
	Fax	Not applicable
	e-mail	Ntsherk@eskom.co.za

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

11.2(2)	The Affected Property is	Kriel Power Station
11.2(13)	The <i>service</i> is	Refurbishment of Low Voltage motors.
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> - Any matter that has cost implication outside the agreed terms. - Any matter that may cause delays in the service. - Any force majeure issue such as protests, covid restrictions.
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	1 day (within 24 hours)
2	The Contractor's main responsibilities	Data required by this section of the core clauses is also provided by the Contractor 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	2 weeks of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	Contract signature date (date of the last party signing the contract)
30.1	The <i>service period</i> is	5 years
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	
50.1	The <i>assessment interval</i> is	between the 5 day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	4 weeks.
51.4	The <i>interest rate</i> is	<p>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</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if</p>

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

6	Compensation events	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
7	Use of Equipment Plant and Materials	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	Not applicable
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	Data for main Option clause	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	2 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i>	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	To be known when dispute arises
	Tel No.	To be known when dispute arises
	Fax No.	To be known when dispute arises
	e-mail	To be known when dispute arises
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	One month prior the tender closing date. (2nd,3rd ,4th and 5th years anniversary are subjected to CPA claim).																					
	The proportions used to calculate the Price Adjustment Factor are:	<table border="1"> <thead> <tr> <th>proportion</th> <th>linked to index for</th> <th>Index prepared by</th> </tr> </thead> <tbody> <tr> <td>35%</td> <td>Labour Table C3(All Hourly-Paid Employees)</td> <td>SEIFSA</td> </tr> <tr> <td>17.50%</td> <td>Table E-EX</td> <td>SEIFSA (Roundbar, Squares and Vastrap)</td> </tr> <tr> <td>17.50%</td> <td>Table M</td> <td>SEIFSA (Mildsteel and Plates)</td> </tr> <tr> <td>15%</td> <td>Transport Table L2-A</td> <td>SEIFSA</td> </tr> <tr> <td>15%</td> <td>non-adjustable</td> <td></td> </tr> <tr> <td>100%</td> <td></td> <td></td> </tr> </tbody> </table>	proportion	linked to index for	Index prepared by	35%	Labour Table C3(All Hourly-Paid Employees)	SEIFSA	17.50%	Table E-EX	SEIFSA (Roundbar, Squares and Vastrap)	17.50%	Table M	SEIFSA (Mildsteel and Plates)	15%	Transport Table L2-A	SEIFSA	15%	non-adjustable		100%		
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15%	Transport Table L2-A	SEIFSA																					
15%	non-adjustable																						
100%																							
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.																					
X17	Low service damages																						
X17.1	The <i>service level table</i> is in	Part C1.2a ,Annexure A page 12.																					
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	<p>The greater of</p> <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <ul style="list-style-type: none"> • Defects due to his design, plan and specification, • Defects due to manufacture and fabrication outside the Affected Property, • loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), • death of or injury to a person and • infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	2 months after the end of the <i>service period</i>.
X19	Task Order	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	14 days of receiving the Task Order
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 and A3 as stated in clause 93.

Z4 Confidentiality

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Affected Property;
 - warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of the *service*; and
 - undertakes, in and about the execution of the *service*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *service*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

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

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

Z8 Notifying compensation events

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

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

Z9 Employer's limitation of liability

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)

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

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

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

Z11 Ethics

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

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

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

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

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

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

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

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

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

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

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

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

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

Z12 Insurance

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

Insurance cover 83

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

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

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the <i>Contractor</i> to the <i>Employer's</i> property	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a 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 Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

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

Z14 Asbestos

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

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, 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 the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Annexure A: Table of low service damages (X17)

Low Service Damage Description	Value of Low Service Damages	Limit of Low Service Damage
Service delays of not finishing as per agreed upon Program submitted to the <i>Service Manager</i> .	20% of the line item per Task Order value.	Limited to 20% of the line item per Task
For material certificates/material that does not meet the service requirements.	25% of the line item per Task Order value.	Limited to 25% of the line item per Task Order value.
Service delays due to <i>Contractor</i> not responding on time as per Core clause 13.3	30% of the line item per Task Order value.	Limited to 30% of the line item per Task Order value.

C1.2 Contract Data

Part two - Data provided by the Contractor

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

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

Notes to a tendering contractor:

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

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

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

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 5391902 or www.ecs.co.za

Responsibilities:

Qualifications:

Experience:

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

A	Priced contract with price list
11.2(12)	The <i>price list</i> is in
11.2(19)	The tendered total of the Prices is R
C	Target contract with price list
11.2(12)	The <i>price list</i> is in
11.2(20)	The tendered total of the Prices is R
E	Cost reimbursable contract
11.2(12)	The <i>price list</i> is in

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title	No of pages
	This Cover Page	1
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i>	33

C2.1 Pricing assumptions: Option A

1. 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	(12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.
	11.2	(17) The Price for Services Provided to Date is the total of <ul style="list-style-type: none">the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed andwhere 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.

2. 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.

3. 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).

4. Preparing the *price list*

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

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

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

4.1. 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

REFURBISHMENT OF LOW VOLTAGE MOTORS - KRIEL POWER STATION

MOTOR DETAILS			REPAIR RATES				TOTAL RATE	QTY	SUB -TOTAL
Item Nr.	Stock no.	Descriptions	Assessment	Rewind	Basic Overhaul	Breakdown			
1.1	141245	MOTOR, ELECTRIC: POWER: 0.25 HP; SPEED: 1425 RPM; FRAME: 5K42DG5096; CURRENT: 0.83 A; POTENTIAL: 380 VAC; REFERENCE NO: 5K42DG5096						15	
1.2	141277	MOTOR, ELECTRIC: POWER: 0.18 KW; SPEED: 1410-1425 RPM; FRAME: DY80D; CURRENT: 2 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 19.5 X LG 38 MM; PHASE: 3; REFERENCE NO: 80-4; 6 A, FEMCO, CONNECTION STAR, 50 HZ						15	
1.3	141220	MOTOR, ELECTRIC: POWER: 0.18 KW; SPEED: 1390-1680 RPM; FRAME: 63B4; CURRENT: 1.1-0.63 A; POTENTIAL: 220/440 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 11 X LG 23 MM; POLES: 4; PHASE: 3; GIEM GRUPPO INDUSTRIALE ERCOLE, FOR GUNBLOWERS, CONNECTION DELTA/STAR, 50/60HZ						15	
1.4	141249	MOTOR, ELECTRIC: POWER: 0.18 KW; SPEED: 1410 RPM; FRAME: KOD446AMAWKRDS36; CURRENT: 0.59 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 10 X LG 22 MM; REFERENCE NO: KOD446; GEORGI KOBALT, CONNECTION DELTA/STAR, 50 HZ						15	

1.5	141248	MOTOR, ELECTRIC: POWER: 0.18 KW; SPEED: 1425 RPM; FRAME: 71-4; CURRENT: 0.47 A; POTENTIAL: 380 VAC; 1380 RPM, FEMCO						15	
1.6	140197	MOTOR, ELECTRIC: POWER: 0.18 KW; SPEED: 2800 RPM; FRAME: D562/45; CURRENT: 1.4-0.8 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 15 X LG 22 MM; PHASE: 3; REFERENCE NO: D562/45; 50 HZ						15	
2.1	186208	MOTOR, ELECTRIC: POWER: 0.25 KW; SPEED: 2740 RPM; FRAME: 63M; CURRENT: 1.5 A; POTENTIAL: 380 VAC; MOUNTING: B3 FOOT; ENCLOSURE RATING: IP55; TEFC; SHAFT SIZE: DIA 11 MM; INSULATION CLASS: F; SERVICE FACTOR: 0.72; FOR DA DOSING PUMP AT UNIT 1-6, CONNECTION DELTA						15	
2.2	140627	MOTOR, ELECTRIC: POWER: 1.1 KW; SPEED: 1390 RPM; FRAME: 90S-4; CURRENT: 2.8 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP44; SHAFT SIZE: DIA 24 X LG 48 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: 71; 0.25 KW, 1350 RPM, 0.87 A, PEDESTAL MOUNTED, GEC, 50 HZ						15	
2.3	215853	MOTOR, ELECTRIC: POWER: 0.25 KW; SPEED: 1310 RPM; CURRENT: 1.45-0.83 A; POTENTIAL: 230/400 VAC; MOUNTING: FLANGE B5; ENCLOSURE RATING: IP54; SHAFT SIZE: DIA 11 MM; INSULATION CLASS: F; PHASE: 3; SUPPL P/N: HA20458/42882; CONNECTION STAR, 50 HZ						15	
2.4	141206	MOTOR, ELECTRIC: POWER: 0.25 KW; SPEED: 1350 RPM; FRAME: 71A4; CURRENT: 0.87 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 10 X LG 22 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: 71A4; FEMCO, 50 HZ						15	

2.5	141297	MOTOR, ELECTRIC: POWER: 0.27 KW; SPEED: 1750-3350 RPM; FRAME: QUG71M2; CURRENT: 0.7-1.2 A; POTENTIAL: 240/415 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 14 X LG 24 MM; PHASE: 3; BBC, 50/60 HZ						15	
3.1	140625	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1390 RPM; FRAME: HEUA80LRA; CURRENT: 1.1 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP65; SHAFT SIZE: 90 MM; CONNECTION LOCATION: TERMINAL; REFERENCE NO: HEUA80LR4; BBC						15	
3.2	141228	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1425 RPM; FRAME: 1651; CURRENT: 14 A; POTENTIAL: 380/440 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TETM; SHAFT SIZE: DIA 15 X LG 50 MM; INSULATION CLASS: E; PHASE: 3; 1 A, 50 HZ						15	
3.3	140622	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1370 RPM; FRAME: 71-4; CURRENT: 0.86 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; REFERENCE NO: 71-4						15	
3.4	140628	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1370 RPM; FRAME: 71B4; CURRENT: 1.2 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 14 X LG 34 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: 71B4; PEDESTAL MOUNTED; GEC; 50 HZ						15	
3.5	141287	MOTOR, ELECTRIC: POWER: 0.3 KW; SPEED: 3000 RPM; FRAME: MKH94X007; CURRENT: 3.1 A; POTENTIAL: 220 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 10 X LG 24 MM; J WILLISOHN						15	
3.6	141223	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1380/1660 RPM; FRAME: D71D4; CURRENT: 1.9-1.1 A; POTENTIAL: 220/440 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 14 X LG 24 MM; REFERENCE NO: D71D4; CONNECTION DELTA/STAR						15	

3.7	141213	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 1400 RPM; FRAME: DY612; CURRENT: 1 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 15.5 X LG 47 MM; REFERENCE NO: DY612; MINI						15	
3.8	141296	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 900 RPM; FRAME: HEUB806L; CURRENT: 3.1-0.78 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 19 X LG 40 MM; INSULATION CLASS: E; BBC						15	
3.9	141286	MOTOR, ELECTRIC: POWER: 0.37 KW; SPEED: 930 RPM; FRAME: MT80S; CURRENT: 2.4 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 19 X LG 40 MM; REFERENCE NO: MT80S						15	
4.1	140017	MOTOR, ELECTRIC: POWER: 0.55 KW; SPEED: 2820 RPM; FRAME: DC617; CURRENT: 4.8 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 15.5 X LG 47 MM; PHASE: 1; REFERENCE NO: DC617; 50 HZ						15	
4.2	182996	BLOWER: TYPE: AIR; SIZE: 50 MM; POTENTIAL: 380 V; CURRENT: 2.7 A; SUPPL P/N: A255/11; MODEL NO: 800; BLOWER; RADIAL; COMPLETE WITH MOTOR AND 500 MM FAN, IN AND OUT LET COWL; ELECTRICAL RATING: 3 PH, 50 HZ, 1.1 KW;						15	
4.3	141247	MOTOR, ELECTRIC: POWER: 0.55 KW; SPEED: 1400 RPM; FRAME: KOD646-MA6-WKRD-S36; POTENTIAL: 380 V; GEORGI KOBOLT BREMS						15	
4.4	141336	MOTOR, ELECTRIC: POWER: 0.55 KW; SPEED: 1400 RPM; FRAME: LS80L1; CURRENT: 1.65 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 19 X LG 44 MM; INSULATION CLASS: E; PHASE: 3; REFERENCE NO: LS80L1; LEROY SOMER, 50 HZ						15	

5.1	140623	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 2205 RPM; FRAME: DY617; CURRENT: 1.6 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; REFERENCE NO: DY617; MINI						15	
5.2	141227	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 2850 RPM; FRAME: 1660; CURRENT: 2 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TETM; SHAFT SIZE: DIA 15.5 X LG 48 MM; INSULATION CLASS: E; PHASE: 3; 50 HZ						15	
5.3	183954	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1420 RPM; FRAME: 80; CURRENT: 1.95 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: OD 19 MM; INSULATION CLASS: F; PHASE: 3; CONNECTION STAR/DELTA, 50 HZ						15	
5.4	140603	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1425 RPM; FRAME: 143TC; CURRENT: 3-1.7-1.5 A; POTENTIAL: 220/380-440 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 22 X LG 57 MM; INSULATION CLASS: B; PHASE: 3; TEMPERATURE CLASS: 40 DEG C; SUPPL P/N: M48-229; CAT NO: M17; REFERENCE NO: 143TC; F-100 DES-B; BALDER INDUSTRIAL, SPEC A3503X141, CODE 8, FULL LOAD EFF 75 PCT PF 80 PCT, 50 HZ						15	
5.5	140624	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1410 RPM; FRAME: DY80D; CURRENT: 2 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; REFERENCE NO: DY80D						15	
5.6	141289	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1390-1410 RPM; FRAME: QU80M4CZ; CURRENT: 3.5-2 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 19 X LG 39 MM; INSULATION CLASS: B; PHASE: 3; BBC, CONNECTION DELTA/STAR, 50 HZ						15	

5.7	141215	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1410 RPM; FRAME: DY905; CURRENT: 2.1 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 24 X LG 50 MM; PHASE: 3; CONNECTION DELTA						15	
5.8	140565	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 1420-1450 RPM; FRAME: IEC 80B4; CURRENT: 4-2.3 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; PHASE: 3; SPECIFICATION: IEC 80B4; SUPPL P/N: A1C0812 A-A000; SCHORCH, OIL PUMP, FOR COMPRESSOR 1 - 4; A1C0812 A-A000						15	
5.9	141251	MOTOR, ELECTRIC: POWER: 0.06 KW; SPEED: 1320 RPM; FRAME: ILC3051-4ADWO; CURRENT: 0.38-0.22 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 9 X LG 20 MM; PHASE: 3; REFERENCE NO: ILC30514ADWO; ILC3051; CONNECTION DELTA/STAR, 50 HZ						10	
5.10	141243	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 900 RPM; FRAME: LS90L3; CURRENT: 2.97 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 24 X LG 50 MM; REFERENCE NO: LS90L3; LEROY SOMER						10	
6.1	141222	MOTOR, ELECTRIC: POWER: 1.1 KW; SPEED: 1425 RPM; FRAME: NYC11D4; CURRENT: 2.9 A; POTENTIAL: 380 VAC; PHASE: 3; REFERENCE NO: NYC-11D4						10	
6.2	140626	MOTOR, ELECTRIC: POWER: 1.1 KW; SPEED: 1390 RPM; FRAME: 90S-4; CURRENT: 2.8 A; POTENTIAL: 380 VAC; PEDESTAL MOUNTED, FEMCO, GEC						10	
6.3	141226	MOTOR, ELECTRIC: POWER: 1.1 KW; SPEED: 1400 RPM; FRAME: DY905; CURRENT: 2.8 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 19 X LG 48 MM; INSULATION CLASS: B; PHASE: 3; CONNECTION STAR, 50 HZ						10	

6.4	140085	MOTOR, ELECTRIC: POWER: 0.75 KW; SPEED: 960 RPM; FRAME: DNV90L; CURRENT: 2.3 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 24 X LG 50 MM; PHASE: 3; 920 RPM, 1.1 HP, 3.1 A, BROOKS, 50 HZ						15	
6.5	141197	MOTOR, ELECTRIC: POWER: 1.1 KW; SPEED: 930 RPM; FRAME: D90L; CURRENT: 3.6 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 20 X LG 50 MM; INSULATION CLASS: F; PHASE: 3; REFERENCE NO: D90L; 50 HZ						15	
7.1	140687	MOTOR, ELECTRIC: POWER: 1.5 KW; SPEED: 2820 RPM; FRAME: DZ90S0; CURRENT: 3.3 A; POTENTIAL: 380 VAC; MOUNTING: B35 FLANGE; PHASE: 3; REFERENCE NO: B010230/005PB; GEC, DE BEARING 6205ZZ, NDE BEARING 6204ZZ, FOR 18KV AIR CIRCUIT BREAKER COOLING PUMP						15	
7.2	141252	MOTOR, ELECTRIC: POWER: 1.5 KW; SPEED: 1400 RPM; FRAME: KOD7410; CURRENT: 5.9-3.4 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 28 X LG 60 MM; PHASE: 3; GEORGI KOBALT, 50 HZ						15	
7.3	140620	MOTOR, ELECTRIC: POWER: 1.5 KW; SPEED: 1415 RPM; FRAME: D100L; CURRENT: 4.1 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 28 X LG 58 MM; REFERENCE NO: D100L; PEDESTAL MOUNTED						15	
7.4	141246	MOTOR, ELECTRIC: POWER: 1.5 KW; SPEED: 930 RPM; FRAME: D100L; CURRENT: 4.4 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 28 X LG 58 MM; PHASE: 3; 960 RPM, CONNECTION STAR, 50 HZ						15	

8.1	727777	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 3000 RPM; FRAME: 112 M; CURRENT: 3.97 A; POTENTIAL: 380 V; MOUNTING: HORIZONTAL/FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: 28 MM; CONNECTION LOCATION: TERMINAL BOX ON SIDE; POLES: 2; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CAST IRON; SERVICE FACTOR: 0.88; TEMPERATURE CLASS: 155 DEG C; DIRECTION: CLOCKWISE AND ANTI-CLOCKWISE						15	
8.3	141244	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 1435 RPM; FRAME: DZ100L; CURRENT: 5.1 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 28 X LG 60 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: DZ100L; GEC, CONNECTION STAR, 50 HZ						15	
8.4	141216	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 1430 RPM; FRAME: LA100L1; CURRENT: 4.7 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 28 X LG 60 MM; PHASE: 3; REFERENCE NO: LA100L1; 50 HZ						15	
8.5	141335	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 1425 RPM; FRAME: LS100L1; CURRENT: 5.15-9 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 28 X LG 60 MM; INSULATION CLASS: E; PHASE: 3; SERVICE FACTOR: S4; LEROY SOMER, CONNECTION DELTA/STAR, 50 HZ						15	
8.6	141253	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 1400 RPM; FRAME: KOD8413; CURRENT: 6.1 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 28 X LG 60 MM; PHASE: 3; MAWKRDS 36, 50 HZ						15	

8.7	141285	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 950 RPM; FRAME: DNV112MH; CURRENT: 6.4 A; POTENTIAL: 380 VAC; REFERENCE NO: DNV112MH; BROOK CROMPTON						15	
8.8	140621	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 935 RPM; FRAME: D11ZM; CURRENT: 5.9 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 28 X LG 60 MM; PHASE: 3; PEDESTAL MOUNTED, CONNECTION STAR, 50HZ						15	
8.9	141225	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 940 RPM; FRAME: D112MA; CURRENT: 5.9 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 28 X LG 60 MM; INSULATION CLASS: E; PHASE: 3; REFERENCE NO: D112M; CONNECTION DELTA, 50HZ						15	
8.10	140618	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 700 RPM; FRAME: MBL132S38-8; CURRENT: 6.8-11.5 A; POTENTIAL: 380/330 VAC; MOUNTING: PEDESTAL; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; REFERENCE NO: 6649081; 2.2 KW, PEDESTAL MOUNTED, CONNECTION DELTA/STAR, 50 HZ; MANUFACTURER:- ASEA						15	
8.11	141214	MOTOR, ELECTRIC: POWER: 2.2 KW; SPEED: 705-715 RPM; FRAME: D13251; CURRENT: 6.5 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; 6.3 AMP, FRAME SIZE DZ 132 S, GEC, CONNECTION STAR, 50 HZ						15	
9.1	140594	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 2800 RPM; FRAME: AD90-2; CURRENT: 7 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP67; INSULATION CLASS: F; PHASE: 3; SUPPL P/N: AD90-2-85; CONNECTION STAR, 50HZ						25	

9.2	665883	FAN: TYPE: CENTRIFUGAL; DIMENSIONS: WD 110 X LG 750 X HT 710 MM; VOLUME RATING: 0.46 M3/S; MATERIAL: MS; SPECIFICATION: PD5500:2018; BLADE QUANTITY: 36; DRIVER: MOTOR INDUCTION; SUPPL P/N: CMA528-2T8M-1.5; BLOWER SUCTION FLANGE: ROUND; FLANGE DIMENSIONS: ID 194 X OD 295MM; HOLE: 8; PCD: 255MM; HOLE DIA: 20MM; OUTLET FLANGE: RECTAGULAR; WATER DRAIN REQUIRED AT THE BOTTOM OF THE CASING; SAMPLE IS AVAILABLE						25	
9.3	141241	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 955 RPM; FRAME: 13ZS; CURRENT: 8.2 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; POLES: 2; PHASE: 3; CASING MATERIAL: CAST IRON; GEC, 4 KW, FRAME DX-112-MD, USED WITH SFP GLAND STEAM VENT FAN, CONNECTION DELTA, 50 HZ						25	
9.4	141283	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 1415 RPM; FRAME: T-DA100BD/01-45; CURRENT: 11.8-6.8 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: 0.81; REFERENCE NO: 99281178; BROOK CROMPTON, FOR COAL FEEDER BELT, CONNECTION STAR, 50HZ						25	
9.5	141250	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 1400 RPM; FRAME: KOD8413; CURRENT: 11.6-6.7 A; POTENTIAL: 380 VAC; SHAFT SIZE: DIA 28 X LG 58 MM; PHASE: 3; MAWKRDS 36, GEORGI KOBALT						25	

9.6	250249	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 1410 RPM; FRAME: 100L; CURRENT: 5.94 A; POTENTIAL: 380 V; MOUNTING: FLANGE VERTICAL; ENCLOSURE RATING: IP56; SHAFT SIZE: DIA 28 MM; POLES: 4; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CAST IRON; SERVICE FACTOR: S1; DIRECTION: BI DIRECTIONAL; TYPE: SQUIRREL CAGE INDUCTION; REFERENCE NO: G064017; FOR USE AT NORTH AND SOUTH LIME PLANT, APPLICATION: DRAFT TUBE MIXER						25	
9.7	252789	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 1430 RPM; FRAME: 100L-B3/ST; CURRENT: 6.44 A; POTENTIAL: 380 V; MOUNTING: FLANGE; FOOT; ENCLOSURE RATING: IP55; TEFC; POLES: 4; SUPPL P/N: ZAP 1000; REFERENCE NO: ATW-36-4F-2; 075765/66						25	
9.8	237293	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 950 RPM; FRAME: BG56; CURRENT: 7.3 A; POTENTIAL: 400 V; MOUNTING: IM B3 FLAT; ENCLOSURE RATING: IP55; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: 0.8; SUPPL P/N: 1PP9113-6LA90-Z; 150MM SHAFT, STAR CONNECTION, POWER FACTOR 0.75, HORIZONTAL						25	
10.1	141284	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 2820 RPM; FRAME: D112MA; CURRENT: 8.6 A; POTENTIAL: 380 VAC; PHASE: 3; GEC						25	
10.2	141299	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 1425 RPM; FRAME: MJUK112M4; CURRENT: 8.6 A; POTENTIAL: 380 VAC; SHAFT SIZE: DIA 28 X LG 60 MM; INSULATION CLASS: E; PHASE: 3; GEC, 5.5 HP, 50 HZ						15	

10.3	140566	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 1430 RPM; FRAME: DX112MD; CURRENT: 9 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 28 X LG 65 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; DRAWING NO: 2/72/08/008 BOO 2210/004 LB0 1286 REV 1; REFERENCE NO: B002210/004/OE; MODIFIED VERSION, MOTOR SHAFT MODIFIED AS PER DRAWING, BMM, CONNECTION DELTA, 50 HZ						15	
10.4	140249	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 1430 RPM; FRAME: DX112MD; CURRENT: 9 A; POTENTIAL: 380 VAC; REFERENCE NO: DX112MD						15	
10.5	139555	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 1420 RPM; CURRENT: 9.2 A; POTENTIAL: 380 VAC; SIEMENS						15	
10.6	141219	MOTOR, ELECTRIC: POWER: 4.8 KW; SPEED: 1400 RPM; FRAME: DNV112MD; CURRENT: 10.9 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 28 X LG 58 MM; INSULATION CLASS: B; PHASE: 3; 4 KW, 1440 RPM, 8.2 AMP, BROOKS, CONNECTION DELTA, D112M						15	
10.7	727785	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 1000 RPM; FRAME: 132 MA; CURRENT: 7.21 A; POTENTIAL: 380 V; MOUNTING: HORIZONTAL FLANGE - IMB5; ENCLOSURE RATING: IP 55; SHAFT SIZE: 38 MM; CONNECTION LOCATION: TERMINAL BOX ON SIDE; POLES: 6; INSULATION CLASS: F; PHASE: 3 PHASE; CASING MATERIAL: CAST IRON; SERVICE FACTOR: 0.88; TEMPERATURE CLASS: 155 DEG C; DIRECTION: CLOCK/ANTI CLOCKWISE						25	

10.8	141545	MOTOR, ELECTRIC: POWER: 4 KW; SPEED: 720 RPM; FRAME: D160MD; CURRENT: 12.2 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 42 X LG 110 MM; CONNECTION LOCATION: TERMINAL BOX LHS; CLASSIFICATION: ASH/DUST/OIL; POLES: 8; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CAST IRON; SERVICE FACTOR: S1; TEMPERATURE CLASS: B; DIRECTION: BI-DIRECTIONAL; SPECIFICATION: IEC 60034; TYPE: CAGE INDUCTION; REFERENCE NO: D160MD; U1 TO 4 MILL GEARBOX LUB OIL						25	
11.1	140552	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 2860 RPM; FRAME: DX132SD; CURRENT: 11.6 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 38 X LG 82 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; REFERENCE NO: DX132SD; CONNECTION DELTA, 50 HZ						15	
11.2	141256	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 2830 RPM; FRAME: D13251; CURRENT: 11.5 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: E; GEC, CONNECTION DELTA, 50 HZ						15	
11.3	141339	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 1400 RPM; FRAME: DVS132-S4; CURRENT: 11.8 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; INSULATION CLASS: E; PHASE: 3; NOTE, ONLY SEW EURODRIVE COMPLETE WITH BRAKE AND HANDWHEEL ACCEPTABLE, CONNECTION DELTA, 50HZ						15	

11.4	140619	MOTOR, ELECTRIC: POWER: 4.9 HP; SPEED: 1440 RPM; FRAME: 002727; CURRENT: 10.7 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 28 X LG 35 MM; REFERENCE NO: 002727; 49 KW, PEDSETAL MOUNTED						15	
11.5	141217	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 1430 RPM; FRAME: DZ132SDB; CURRENT: 12 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: P; PHASE: 3; REFERENCE NO: DZ132SD; CONNECTION: DELTA, 50 HZ						15	
11.6	140250	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 1435-1440 RPM; FRAME: DZ132SD; CURRENT: 12.2 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: B; PHASE: 3; CONNECTION DELTA, 50 HZ						15	
11.8	141255	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 950 RPM; FRAME: 132SD; CURRENT: 15.3 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; 50 HZ						15	
11.9	141292	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 970 RPM; FRAME: HJTL160M6; CURRENT: 12.5 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: B; REFERENCE NO: HJTL160M6; BBC, CONNECTION DELTA, 50 HZ						15	
11.10	141237	MOTOR, ELECTRIC: POWER: 5.5 KW; SPEED: 950 RPM; FRAME: 132M; CURRENT: 13.9 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; INSULATION CLASS: B; PHASE: 3; SUPPL P/N: 1LA6134-6AA60-ZN00; FOR TRIPPER CARS, CONNECTION DELTA/STAR, 50HZ						15	

12.1	141334	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 2890 RPM; FRAME: 132SD; CURRENT: 15.5 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; GEC						15	
12.2	141257	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 2850 RPM; FRAME: DZ132SD; CURRENT: 15.1 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; 2890 RPM, 15.8 A, CONNECTION DELTA						15	
12.3	141293	MOTOR, ELECTRIC: POWER: 7-1/2 HP; SPEED: 2880 RPM; FRAME: MBT132SA2; CURRENT: 11.3-6.5 A; POTENTIAL: 380/660 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: F; PHASE: 3; 7.5 KW, 6.3 AMP, ASEA, CONNECTION DELTA/STAR, 50HZ						15	
12.4	665885	FAN: TYPE: CENTRIFUGAL; DIMENSIONS: WD 235 X LG 820 X HT 750 MM; VOLUME RATING: 1.56 M3/S; MATERIAL: MS; SPECIFICATION: PD5500:2018; BLADE QUANTITY: 18; DRIVER: MOTOR INDUCTION; SUPPL P/N: CAM550-2T-7.5; BLOWER SUCTION FLANGE: ROUND; FLANGE DIMENSIONS: ID 270 X OD 395MM; HOLE: 8; PCD: 350MM; HOLE DIA: 22MM; OUTLET FLANGE: SQUARE; WATER DRAIN REQUIRED AT THE BOTTOM OF THE CASING; SAMPLE IS AVAILABLE						15	
12.5	186207	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 1460 RPM; FRAME: 132MD; CURRENT: 14.6 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE B5; ENCLOSURE RATING: IP55; TEFC; SHAFT SIZE: DIA 38 MM; INSULATION CLASS: F; SERVICE FACTOR: 0.82; FOR SULZER POWER PACKS AT UNIT 1-6, CONNECTION DELTA						15	

12.6	141274	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 1440 RPM; FRAME: DPC160M; CURRENT: 18 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 48 X LG 110 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: DPC160M; PEDESTAL MOUNTED, BMM, CONNECTION DELTA, 50 HZ						15	
12.7	140580	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 1450 RPM; CURRENT: 27-16.5 A; POTENTIAL: 220/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 40 X LG 80 MM; PHASE: 3; TEMPERATURE CLASS: 40 DEG C; SPECIFICATION: IEC 132M; REFERENCE NO: 8C-8774-3301-005; COMPLETE WITHH BRAKE, ROTOR KL16						15	
12.8	140551	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 1445 RPM; FRAME: D132MD; CURRENT: 12 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 38 X LG 80 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: D132MD; CONNECTION DELTA, 50 HZ						15	
12.9	648505	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 1455 RPM; FRAME: 132M; CURRENT: 8.92 A; POTENTIAL: 400 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 38 MM; CONNECTION LOCATION: DELTA; POLES: 4; PHASE: 3; DIRECTION: BI DIRECTIONAL; SPECIFICATION: IEC 6003-2-1:2007; TYPE: INDUCTION						15	
12.10	641581	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 960 RPM; FRAME: 160M; CURRENT: 15.8 A; POTENTIAL: 400 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: 41 MM; CONNECTION LOCATION: DELTA; INSULATION CLASS: F; PHASE: 3; DIRECTION: BI-DIRECTIONAL; TYPE: ERATOR						15	
12.11	727776	MOTOR ELEC:7.5 KW;1000 RPM;160L;13.5 A;6						15	

13.1	141294	MOTOR, ELECTRIC: POWER: 11 KW; SPEED: 2890 RPM; FRAME: 160MD; CURRENT: 22.2 A; POTENTIAL: 380 VAC; MOUNTING: V1 FLANGE; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 42 MM; INSULATION CLASS: F; PHASE: 3; SHAFT DOWN MOUNTING, FLANGE 4 HOLE 16 MM, BOLT SIZE ON 300 MM PCD, ALSTOM GEC, CONNECTION STAR/DELTA						15	
13.2	140550	MOTOR, ELECTRIC: POWER: 11 KW; SPEED: 1450 RPM; FRAME: D160M; CURRENT: 22 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 42 X LG 108 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; REFERENCE NO: D160M; CONNECTION DELTA						15	
13.3	727784	MOTOR ELEC:11 KW;1000 RPM;160L;19.8 A;42						15	
13.4	141259	MOTOR, ELECTRIC: POWER: 11 KW; SPEED: 740 RPM; FRAME: 180L; CURRENT: 25 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 48 X LG 110 MM; INSULATION CLASS: B; PHASE: 3; CONNECTION DELTA, 50 HZ						15	
13.5	141282	MOTOR, ELECTRIC: POWER: 11 KW; SPEED: 488 RPM; FRAME: D225M/LS4; CURRENT: 44 A; POTENTIAL: 380 VAC; MOUNTING: B3 FOOT; CONNECTION LOCATION: RH; POLES: 12; PHASE: 3; SPECIFICATION: IEC 60034-1; SABS 1804-1/2; DRAWING NO: B22-AB-414 REV 1; REFERENCE NO: 1625; RE ASH CRUSHER, 8MM EARTH STUD IS REQUIRED ON THE MOTOR BELOW THE TERMINAL BOX, 50HZ						10	

14.1	224550	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 2930 RPM; FRAME: 160M; CURRENT: 28.8 A; POTENTIAL: 380-400 V; MOUNTING: B3 FOOT; SHAFT SIZE: 10 MM; INSULATION CLASS: F; PHASE: 3; SUPPL P/N: 1804-1-2; DRAWING NO: IEC 60034-1 REV 1; 0.86 SERVICE FACTOR, TO BE USED ON TURBINE PLANT, FOR AUXILLARY DEMIN PUMP AT UNIT 1.4 AND 6						15	
14.2	139939	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 2920 RPM; FRAME: DPC160L; CURRENT: 34 A; POTENTIAL: 380 VAC; PHASE: 3; REFERENCE NO: DPC160L						15	
14.3	140466	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 1460-1470 RPM; FRAME: 160L; CURRENT: 58 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; INSULATION CLASS: B3; PHASE: 3; 15KW, 29AMP, CONNECTION DELTA, 50HZ						15	
14.4	140200	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 1450 RPM; FRAME: D355L; CURRENT: 32 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: OD 100 X LG 220 MM; PHASE: 3; 50 HZ						15	
14.5	140521	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 1480 RPM; FRAME: G160L4; CURRENT: 21.7 A; POTENTIAL: 525 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 28 X LG 42 MM; INSULATION CLASS: F; PHASE: 3; SUPPL P/N: AG01/02; PINION GEAR, DE SHIELD, FLENDER HIMMEL, FOR USE WITH FLY ASH AGITATOR, CONNECTION DELTA						15	
14.6	140198	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 1460 RPM; FRAME: 160L; POTENTIAL: 380 VAC; MOUNTING: FOOT; REFERENCE NO: 160L; 2860 RPM, FRAME SIZE DPC 160M, PEDESTAL MOUNTED, GEC						15	

14.7	141263	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 970 RPM; FRAME: 180L; CURRENT: 32 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; TEFC; SHAFT SIZE: DIA 48 MM; INSULATION CLASS: B; PHASE: 3; PEDESTAL MOUNTED, CONNECTION DELTA; 0.82 SERVICE FACTOR						10	
14.8	141264	MOTOR, ELECTRIC: POWER: 15 KW; SPEED: 720 RPM; FRAME: 200L; CURRENT: 31.5 A; POTENTIAL: 380 VAC; SHAFT SIZE: DIA 55 X LG 118 MM; INSULATION CLASS: B3; CONNECTION DELTA, 50 HZ						20	
15.1	141300	MOTOR, ELECTRIC: POWER: 18 KW; SPEED: 2935 RPM; FRAME: VJTL180M2; POTENTIAL: 380 VAC; MOUNTING: FLANGE; REFERENCE NO: VJTL180M2; 18.5KW, GEC						15	
15.2	141210	MOTOR, ELECTRIC: POWER: 18 KW; SPEED: 1460 RPM; FRAME: VJTL180M; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 48 X LG 108 MM; INSULATION CLASS: B; REFERENCE NO: D180MD; 18.5 KW, CONNECTION DELTA						15	
15.3	141290	MOTOR, ELECTRIC: POWER: 1.89 KW; SPEED: 900 RPM; FRAME: FG001240; CURRENT: 18 A; POTENTIAL: 110/380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 12 X LG 20 MM; REFERENCE NO: FG001240; 1.85 KW						10	
15.4	141275	MOTOR, ELECTRIC: POWER: 18.5 KW; SPEED: 1460 RPM; FRAME: D180M; CURRENT: 37.5 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 48 X LG 110 MM; INSULATION CLASS: B3; PHASE: 3; G E C, CONNECTION DELTA, 50 HZ						15	

16.1	140156	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 2935 RPM; FRAME: D180M; CURRENT: 39.5 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 48 X LG 114 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; TYPE: INDUCTION; CMR, FOR SEAL WATER PUMP, CONNECTION: DELTA, 50 HZ						15	
16.2	141302	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 2925 RPM; FRAME: MJTL180M25P; CURRENT: 42.9 A; POTENTIAL: 380 VAC; BBC						15	
16.3	141231	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 2930 RPM; FRAME: D180M; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; PEDESTAL MOUNTED						15	
16.4	141291	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 2960 RPM; FRAME: D100L; POTENTIAL: 380 VAC; MOUNTING: FOOT; REFERENCE NO: D100L; PEDESTAL MOUNTED						15	
16.5	139610	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 1455 RPM; FRAME: DG180L; CURRENT: 44 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 52 X LG 110 MM; INSULATION CLASS: F; PHASE: 3; REFERENCE NO: DX180L; PEDESTAL MOUNTED, 4 HOLES 12 MMD, MOUNTING CENTERS 280 MM X 280 MM, 280 MM PARALLEL TO SHAFT AXIS, CENTER OF SHAFT TO MOUNTING SURFACE 180 MM, CONNECTION DELTA, 50 HZ, IC0141						15	
16.6	141281	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 1460 RPM; FRAME: D180L; CURRENT: 44 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 48 X LG 108 MM; INSULATION CLASS: F; PHASE: 3; REFERENCE NO: TEFC D180L; PEDESTAL MOUNTED						15	

17.1	221278	MOTOR, ELECTRIC: POWER: 22 KW; SPEED: 2940 RPM; FRAME: 180M; CURRENT: 4.2 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP65; SHAFT SIZE: DIA 50 MM; POLES: 2; INSULATION CLASS: CL F; PHASE: 3; SUPPL P/N: BD 2676; DRAWING NO: 2163 REV 1; TO BE USED IN TRB-B BLOWER, CONNECTION DELTA, 1.3 SERVICE FACTOR, 50 HZ						15	
17.2	141236	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 2960 RPM; FRAME: D200L; CURRENT: 61 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 55 X LG 112 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; GEC, CONNECTION DELTA						15	
17.3	141295	MOTOR, ELECTRIC: POWER: 26/30 KW; SPEED: 2945 RPM; FRAME: MJTL200L2; CURRENT: 49-65 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 55 X LG 108 MM; INSULATION CLASS: B; PHASE: 3; CEM BBC, SIEMENS, CONNECTION STAR, 50 HZ						15	
17.4	141209	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 2950 RPM; FRAME: D200L; CURRENT: 45 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 55 X LG 112 MM; INSULATION CLASS: B; PHASE: 3; SERVICE FACTOR: S1; REFERENCE NO: D200L; 40 HP, 63 A, CONNECTION DELTA, 50 HZ						15	
17.5	140614	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 2935 RPM; FRAME: D286/GZ20; CURRENT: 41.5 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 48 X LG 140 MM; INSULATION CLASS: E; PEDESTAL MOUNTED, AEI, 50 HZ						15	

17.6	139723	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 1470 RPM; FRAME: VJUL200L2; CURRENT: 58 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 55 X LG 108 MM; INSULATION CLASS: B; REFERENCE NO: VJUL200L2; 2930 RPM, BBC, CONNECTION DELTA						15	
17.7	140615	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 1470 RPM; FRAME: 200L; CURRENT: 58 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 55 X LG 118 MM; INSULATION CLASS: B3; PHASE: 3; FLANGE MOUNTED, SIEMENS						15	
17.8	139608	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 1470-1475 RPM; FRAME: 225S; CURRENT: 59 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 60 X LG 150 MM; INSULATION CLASS: B; PHASE: 3; PEDESTAL MOUNTED, CONNECTION DELTA, 50 HZ						15	
17.9	141260	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 980 RPM; FRAME: 225M; CURRENT: 69 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 60 X LG 140 MM; INSULATION CLASS: B3; PHASE: 3; PEDESTAL MOUNTED, SIEMENS, CONNECTION DELTA, 50 HZ						15	
18.1	140567	MOTOR, ELECTRIC: POWER: 37 KW; SPEED: 2945-2950 RPM; FRAME: 200L; CURRENT: 68 A; POTENTIAL: 380 VAC; SUPPL P/N: 1LA6207-2AA70Z; REFERENCE NO: 200L; ROTOR KL 16						15	
18.2	140406	MOTOR, ELECTRIC: POWER: 37/45 KW; SPEED: 2945 RPM; FRAME: 225M2/GEC 225MD; CURRENT: 72-90 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: TEFC; INSULATION CLASS: F; PHASE: 3; FOR UNIT 1 TO 6 POWER OIL PUMP, ALSTOM GEC, CONNECTION STAR / DELTA, VERTICLE MOUNTED SHALF DOWN						15	

18.3	141211	MOTOR, ELECTRIC: POWER: 37 KW; SPEED: 1475 RPM; FRAME: OUX225S4; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 60 X LG 140 MM; INSULATION CLASS: B; PHASE: 3; PEDESTAL MOUNTED, BBC, CONNECTION DELTA, 50 HZ						15	
18.4	141238	MOTOR, ELECTRIC: POWER: 37 KW; SPEED: 980 RPM; FRAME: 250M; CURRENT: 71 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 65 X LG 140 MM; INSULATION CLASS: B3; PHASE: 3; PEDESTAL MOUNTED, CONNECTION DELTA, 50 HZ						15	
19.1	140613	MOTOR, ELECTRIC: POWER: 45 KW; SPEED: 2950 RPM; FRAME: D225MD; CURRENT: 92.6 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 55 X LG 108 MM; REFERENCE NO: D225MD; BBC						15	
19.2	658483	MOTOR, ELECTRIC: POWER: 90 KW; SPEED: 1500 RPM; FRAME: PPA280S80; CURRENT: 157 A; POTENTIAL: 400 V; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 80 MM; CONNECTION LOCATION: DELTA; POLES: 4; DIRECTION: BI DIRECTIONAL; TYPE: BUFFALO FITTER						15	
19.3	140617	MOTOR, ELECTRIC: POWER: 45 KW; SPEED: 2925 RPM; FRAME: C200M; CURRENT: 89 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; REFERENCE NO: C200M; PEDESTAL MOUNTED, BMM						15	
19.4	141269	MOTOR, ELECTRIC: POWER: 45 KW; SPEED: 2960 RPM; FRAME: 225M; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 55 X LG 108 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; PEDESTAL MOUNTED, SIEMENS, 50 HZ						15	

19.5	141265	MOTOR, ELECTRIC: POWER: 45 KW; SPEED: 1465 RPM; FRAME: D225M; CURRENT: 89 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 60 X LG 140 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; REFERENCE NO: D225M; CONNECTION DELTA, 50 HZ						10	
20.1	141266	MOTOR, ELECTRIC: POWER: 55 KW; SPEED: 2965 RPM; FRAME: D250M; CURRENT: 104 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP54; SHAFT SIZE: DIA 60 X LG 140 MM; INSULATION CLASS: B3; PHASE: 3; CONNECTION DELTA, 50 HZ						15	
20.2	141270	MOTOR, ELECTRIC: POWER: 55 KW; SPEED: 2920 RPM; FRAME: DPC200L; CURRENT: 103 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP23; SHAFT SIZE: DIA 60 X LG 140 MM; CONNECTION LOCATION: RH SIDE; POLES: 2; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CI; SERVICE FACTOR: S1; TEMPERATURE CLASS: B; DIRECTION: BI-DIRECTIONAL; TYPE: INDUCTION; REFERENCE NO: DPC200L; CONNECTION DELTA, 50 HZ						15	
20.3	141203	MOTOR, ELECTRIC: POWER: 55 KW; SPEED: 2930 RPM; FRAME: H7976/4; CURRENT: 105 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 60 X LG 140 MM; INSULATION CLASS: B; PHASE: 3; 75 HP, CONNECTION DELTA, 50 HZ						15	
20.4	140616	MOTOR, ELECTRIC: POWER: 55 KW; SPEED: 1475 RPM; FRAME: 250M; CURRENT: 102 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP54; SHAFT SIZE: DIA 65 X LG 140 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; REFERENCE NO: 18298; 250M; PEDESTAL MOUNTED, CONNECTION DELTA, 50 HZ						15	

20.5	141195	MOTOR, ELECTRIC: POWER: 30 KW; SPEED: 1484 RPM; FRAME: D250S; CURRENT: 109 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 70 X LG 140 MM; INSULATION CLASS: B; PHASE: 3; PEDESTAL MOUNTED, GEC, CONNECTION DELTA, 50 HZ						15	
21.1	141258	MOTOR, ELECTRIC: POWER: 75 KW; SPEED: 2971 RPM; FRAME: 280S; POTENTIAL: 380 VAC; MOUNTING: FOOT; REFERENCE NO: 280S						10	
21.2	141268	MOTOR, ELECTRIC: POWER: 75 KW; SPEED: 1470 RPM; FRAME: DPC350M; CURRENT: 105 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 75 X LG 138 MM; INSULATION CLASS: B; PHASE: 3; REFERENCE NO: DPC350M; 100 HP, CONNECTION DELTA, 50 HZ						10	
21.3	140288	MOTOR, ELECTRIC: POWER: 75 KW; SPEED: 1472 RPM; FRAME: 1LA52554YA70; CURRENT: 144 A; POTENTIAL: 380 VAC; REFERENCE NO: 1LA52554YA70						10	
21.4	141200	MOTOR, ELECTRIC: POWER: 75 KW; SPEED: 1480 RPM; FRAME: D250M; POTENTIAL: 380 VAC; MOUNTING: FOOT; PEDESTAL MOUNTED						10	
22.1	727765	MOTOR, ELECTRIC: POWER: 90 KW; SPEED: 3000 RPM; FRAME: 280S; CURRENT: 162 A; POTENTIAL: 380 V; MOUNTING: HORIZONTAL; ENCLOSURE RATING: IP55; SHAFT SIZE: 65; CONNECTION LOCATION: SIDE TERMINAL BOX; POLES: 2; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CAST IRON; TEMPERATURE CLASS: 155 DEG C; DIRECTION: CLOCKWISE AND ANTI-CLOCKWISE; SPECIFICATION: SANS 1804 - 1&2; TYPE: MOTOR						10	

22.2	141240	MOTOR, ELECTRIC: POWER: 90 KW; SPEED: 1480 RPM; FRAME: D280S; CURRENT: 177 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 80 X LG 168 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; GEC, CONNECTION DELTA						10	
22.3	648434	MOTOR, ELECTRIC: POWER: 90 KW; SPEED: 1500 RPM; FRAME: PPA280S80; CURRENT: 157 A; POTENTIAL: 400 V; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 80 MM; CONNECTION LOCATION: DELTA; POLES: 4; DIRECTION: BI DIRECTIONAL; TYPE: BUFFALO FITTER						10	
23.1	141338	MOTOR, ELECTRIC: POWER: 110 KW; SPEED: 2950 RPM; FRAME: C250M; CURRENT: 200 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 65 X LG 140 MM; INSULATION CLASS: F; PHASE: 3; SERVICE FACTOR: S1; 150 HP, FRAME DPC 350M, GEC, CONNECTION DELTA, 50 HZ						15	
23.2	141201	MOTOR, ELECTRIC: POWER: 110 KW; SPEED: 1481 RPM; FRAME: D280M; CURRENT: 201 A; POTENTIAL: 380 VAC; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 86 X LG 168 MM; PHASE: 3; BMM						10	
24.1	141273	MOTOR, ELECTRIC: POWER: 132 KW; SPEED: 2969 RPM; FRAME: DPC280S; CURRENT: 228 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 65 X LG 140 MM; INSULATION CLASS: B; PHASE: 3; 2960 RPM, GEC, CONNECTION DELTA, 50 HZ						10	
24.2	141202	MOTOR, ELECTRIC: POWER: 132 KW; SPEED: 1485 RPM; FRAME: D315S; CURRENT: 244 A; POTENTIAL: 380 VAC; GEC						10	

24.3	141235	MOTOR, ELECTRIC: POWER: 132 KW; SPEED: 974 RPM; FRAME: VC315MD; CURRENT: 253 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 90 X LG 168 MM; INSULATION CLASS: F; PHASE: 3; REFERENCE NO: VC315MD; CONNECTION DELTA, 50 HZ						10	
25.1	141267	MOTOR, ELECTRIC: POWER: 160 KW; SPEED: 2967 RPM; FRAME: C2315M; CURRENT: 35 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; SHAFT SIZE: DIA 70 X LG 140 MM; INSULATION CLASS: F; PHASE: 3; BMM, GEC, CONNECTION DELTA, 50 HZ						10	
26.1	662529	MOTOR, ELECTRIC: POWER: 200 KW; SPEED: 1485 RPM; FRAME: DG315MX; CURRENT: 365.3 A; POTENTIAL: 400 V; MOUNTING: B3 FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: 90 MM; CONNECTION LOCATION: TOP; CLASSIFICATION: SAFE; POLES: 4; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CAST IRON; SERVICE FACTOR: S1; TEMPERATURE CLASS: B; DIRECTION: BI-DIRECTIONAL; SPECIFICATION: SANS60034-1; TYPE: INDUCTION MOTOR; FULL TEST CERTIFICATE REPORT REQUIRED ON EVERY DELIVERY						10	
27.1	141204	MOTOR, ELECTRIC: POWER: 220 KW; SPEED: 1489 RPM; FRAME: D315ME; CURRENT: 396 A; POTENTIAL: 380 VAC; MOUNTING: B3 FOOT; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 17.2 X LG 85 MM; INSULATION CLASS: F; PHASE: 3; GEC, CONNECTION DELTA, 0.88 SERVICE FACTOR						10	

525V LV Motors

28.1	751469	MOTOR, ELECTRIC: POWER: 220 KW; SPEED: 1500 RPM; FRAME: PPA315L85; CURRENT: 302 A; POTENTIAL: 525 V; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: 90 MM; CONNECTION LOCATION: TERMINAL BOX; POLES: 2; PHASE: 3; MANUF P/N: DPM; DUCK POND MOTOR						10	
28.2	751468	MOTOR, ELECTRIC: POWER: 225 KW; SPEED: 1500 RPM; FRAME: 315LX; CURRENT: 309 A; POTENTIAL: 525 V; MOUNTING: FLANGE; ENCLOSURE RATING: IP55; SHAFT SIZE: 70 MM; CONNECTION LOCATION: TERMINAL BOX; POLES: 4; PHASE: 3; MANUF P/N: CUT1; CUT 1 MOTOR FOR						10	
690V LV Motors									
29.1	666774	MOTOR, ELECTRIC: POWER: 355 KW; SPEED: 1490 RPM; FRAME: 355M/L; CURRENT: 364 A; POTENTIAL: 690 V; MOUNTING: FOOT SLOTTED; ENCLOSURE RATING: IP55; SHAFT SIZE: DIA 100 MM; CONNECTION LOCATION: RHS; CLASSIFICATION: SAFE; POLES: 4; INSULATION CLASS: F; PHASE: 3; CASING MATERIAL: CI; SERVICE FACTOR: 1; TEMPERATURE CLASS: 80 (B); DIRECTION: BI-DIRECTIONAL; SPECIFICATION: IEC60034; TYPE: INDUCTION MOTOR; COMPATIBLE TO RUN WITH A VSD						10	
DC MOTORS									
30.1	140196	MOTOR, ELECTRIC: POWER: 9.5 KW; SPEED: 2700 RPM; FRAME: GWCUFAL84; CURRENT: 61 A; POTENTIAL: 220 VAC						15	

30.2	592505	MOTOR, ELECTRIC: POWER: 5 KW; SPEED: 3000 RPM; FRAME: GWCUFAL64A; CURRENT: 31 A; POTENTIAL: 220 VDC; MOUNTING: FLANGE; ENCLOSURE RATING: IP54; SHAFT SIZE: DIA 32 MM; CONNECTION LOCATION: RH SIDE; INSULATION CLASS: F; CASING MATERIAL: STEEL; SERVICE FACTOR: S5; TEMPERATURE CLASS: F; TYPE: DC LUBE OIL PUMP						15	
30.3	141301	MOTOR, ELECTRIC: POWER: 2 KW; SPEED: 2400 RPM; FRAME: GCUFA64; CURRENT: 14 A; POTENTIAL: 220 V AC/DC; MOUNTING: FLANGE; SHAFT SIZE: DIA 32 X LG 82 MM; INSULATION CLASS: B; REFERENCE NO: GWCUFA64; BBC						15	

REPLACEMENT OF SHAFTS ON SELECTED MOTORS

ASH CRUSHER MOTOR

	Stock no	Descriptions	RATE	Qty	Sub-Total
31.1	141282	MOTOR, ELECTRIC: POWER: 11 KW; SPEED: 488 RPM; FRAME: D225M/LS4; CURRENT: 44 A; POTENTIAL: 380 VAC; MOUNTING: B3 FOOT; CONNECTION LOCATION: RH; POLES: 12; PHASE: 3; SPECIFICATION: IEC 60034-1; SABS 1804-1/2; DRAWING NO: B22-AB-414 REV 1; REFERENCE NO: 1625; RE ASH CRUSHER, 8MM EARTH STUD IS REQUIRED ON THE MOTOR BELOW THE TERMINAL BOX, 50HZ		20	

REPLACEMENT OF IMPELLERS ON SELECTED BLOWERS

BLOWER DETAILS

	Stock no	Descriptions	RATE	Qty	Sub-Total
32.1	140594	MOTOR, ELECTRIC: POWER: 3 KW; SPEED: 2800 RPM; FRAME: AD90-2; CURRENT: 7 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; ENCLOSURE RATING: IP67; INSULATION CLASS: F; PHASE: 3; SUPPL P/N: AD90-2-85; CONNECTION STAR, 50HZ		20	
32.2	141257	MOTOR, ELECTRIC: POWER: 7.5 KW; SPEED: 2850 RPM; FRAME: DZ132SD; CURRENT: 15.1 A; POTENTIAL: 380 VAC; MOUNTING: FLANGE; SHAFT SIZE: DIA 38 X LG 80 MM; PHASE: 3; 2890 RPM, 15.8 A, CONNECTION DELTA		20	

FAN UNITS

	Stock no	Descriptions	RATE	Qty	Sub-Total
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33	751470	FAN, ELECTRIC: TYPE: AXIAL; SIZE: 710 MM; POTENTIAL: 400 V; CURRENT: 0.5 A; VOLUME RATING: 0.37 KW; MANUF P/N: BFPT16; AXIAL FAN FOR BFPT, SUPPLIER TO SUBMIT DETAILED DATA SHEET FOR THE FAN		5	
34	751472	FAN, ELECTRIC: TYPE: AXIAL; SIZE: 710 MM; POTENTIAL: 400 V; CURRENT: 1.26 A; VOLUME RATING: 0.55 KW; SPEED: 3600 RPM; MANUF P/N: PPMF6AU; FAN FOR PYRO PURGE FAN; SUPPLIER TO SUBMIT DETAILED DATASHEET FOR THE FAN		5	
35	751471	FAN, ELECTRIC: TYPE: AXIAL; SIZE: 710 MM; POTENTIAL: 400 V; CURRENT: 1.26 A; VOLUME RATING: 0.55 KW; SPEED: 3600 RPM; MANUF P/N: MOTVF; MAIN OIL TANK VENT FAN MOTOR FAN UNIT; SUPPLIER TO SUBMIT DETAILED DATASHEET FOR THE FAN		5	
36	751467	FAN, ELECTRIC: TYPE: AXIAL; SIZE: 280S MM; POTENTIAL: 400 V; CURRENT: 135 A; VOLUME RATING: 75 KW; MANUF P/N: TCFU; TURBINE COOLING FAN UNIT; SUPPLIER TO SUBMIT DATASHEET FOR THE FAN		5	
37	751466	FAN, ELECTRIC: TYPE: AXIAL; SIZE: 160M MM; POTENTIAL: 400 V; CURRENT: 30 A; VOLUME RATING: 15 KW; BOILER REHEAT FAN UNIT; SUPPLIER TO SUBMIT DATASHEET FOR THE FAN		5	
38	141295	MOTOR, ELECTRIC: POWER: 26/30 KW; SPEED: 2945 RPM; FRAME: MJTL200L2; CURRENT: 49-65 A; POTENTIAL: 380 VAC; MOUNTING: FOOT; ENCLOSURE RATING: TEFC; SHAFT SIZE: DIA 55 X LG 108 MM; INSULATION CLASS: B; PHASE: 3; CEM BBC, SIEMENS, CONNECTION STAR, 50 HZ		5	
TOTAL COST OF REFURBISHMENT EXCL.VAT					

PART 3: SCOPE OF WORK

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C3.2	<i>Contractor's Service Information</i>	
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1 Description of the service

1.1 Executive overview

Kriel Power Station experiences the need to repair and refurbish Low Voltage motors on a regular basis. This includes planned refurbishments as well as unplanned repairs which arise during breakdowns. The intent is to have a contract in place which will allow for these repairs to be done on an "as and when" required basis.

1.2 Employer's requirements for the service

1.2.1 General Requirements Of The Works

The works entails to Collect, dismantle, assess, repair, rewind, overhaul, assemble, paint, test, supply of spares, delivery, as well as replacement of existing LV Motors on an "as-and-when required" basis for Kriel Power Station for the period of five years. All work performed should be in line with SANS 10242-1: The rewinding and refurbishing of rotating electrical machines Part 1: Low-voltage three-phase induction motors

Kriel Power Station is situated approximately half way between Bethal and Ogies on the R545, being just over 30 km from each town and 10 km north-west of Kriel Town.

1.2.2 Scope of work description

- a) All the motors are to be cleaned properly. Shot blasting is preferred (no sandblasting or chemical cleaning).
- b) Removal of the windings is to be carried out strictly in accordance with SABS 0242-1 specifications.
- c) Method of varnishing to be DD and baked or VPI, unless otherwise called for Actuator Duty Cycles; to be approximately 1500 starts per hour and recommended class H.
- d) Paint work to be done as per SABS064 for the type of paint and the method of application.
- e) After painting of the motors is completed, the shafts should be treated for rust prevention. (Shaft journals are to be micro welded or new shafts are to be provided, according to SABS 0242) Metal spraying of shafts is not accepted.
- f) Two sets of Thermistors (i.e. 2 per phase = 6) are to be installed on all motors at all times where Thermistors were originally provided, and one set of Thermistors are to be installed on all actuator motors.
- g) Terminal leads must be clearly marked and of a reasonable length to enable joints to be carried out.

1.2.3 Assessment

Collect from Kriel Power station, strip, and clean, electrical test (stator and rotor), assess mechanical components, investigate, and make proposals to prevent future re-occurrence as well as determining the scope of work.

1.2.4 Rewind

Includes burn out, removal of old coils, cleaning of the core, manufacturing and fitting of new coils, VPI and bake.

1.2.5 Overhauling

- a) Re-gasket motor terminal boxes and replace terminal blocks,
- b) Spray winding with insulating varnish.
- c) Replace bearings and seals.
- d) Balance all rotors.
- e) Supply and fit new circlips.
- f) Re-sleeve DE and NDE End shields.
- g) Re-tap all mounting holes on stator,

- h) Clean stator and prep for assembly,
- i) Polish rotor core and check ovality,
- j) Polish all stator spigots and landings.
- k) Polish journals and seal landings, assemble.
- l) Test, paint and deliver (Job number, date of repair and name plate to be displayed).
- m) If original nameplate is not clear, a new nameplate with the full specification of the motor should be attached.

1.2.6 Testing

- a) Eskom reserves the right to inspect the motors or associated parts at any stage of maintenance, and to witness routine and performance tests. All tests should be conducted in line with SANS 10242-1.
- b) All motors are to be tested by the contractor prior to delivery, and test results are approved by the employer, based on meeting requirements. Eskom Quality Personnel, System Engineer, maintenance, and vibration's analyst to witness the testing.
- c) Test certificates are required for all tests performed.
- d) Routine tests are performed on all repaired motors.
- e) Special tests are performed when specified by the *Employer*

1.2.7 Materials

Bearings	Only SKF, FAG, RHP or NSK bearings are to be used.
Lubrication	Shell Alvania, R2 and R3 ENGEN Premium 3
Fans	OEM unless otherwise specified.
Heat exchanger	OEM unless otherwise specified.
Terminal boxes/blocks/connections	OEM unless otherwise specified

1.2.8 Low Voltage Motors to be refurbished.

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
OBL	Outside battery limits

2 Management strategy and start up.

2.1 The Contractor's plan for the service

The *Contractor* shall submit a plan to the *Service Manager* for acceptance within the period stated in the Part C1.2a Data by Employer of Part C1 agreements and contract data.

2.2 Management meetings

All relevant meetings must be attended.

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Quarterly	Kriel PS	<i>Employer, Contractor, and Service Manager</i>
Overall contract progress and feedback	Quarterly	Kriel PS	<i>Employer, Contractor, and Service Manager</i>

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.

2.3 Contractor's management, supervision and key people

- a) The *Contractor* to provide a key list of personnel who will carry out the work on site with their qualifications attached.
- b) A company organogram shall be shared with the *Service Manager* to communicate accordingly to comply with the NEC3 Term Services Contract communication structures.
- c) The *Contractor* shall provide a site manager/contract manager to manage all contract related matters. Such persons is preferred to have prior experience in contract management and change of this person is communicated in writing, within 1 (one) week of such change, to the *Employer*.
- d) The *Contractor's* supervisor shall be knowledgeable, competent and fully capable to perform supervisory duties without direct or continuous supervision by the employer, to liaise and co-ordinate activities with various departments, including the employer's personnel and others in order to fulfill all obligations.
- e) In the absence of the relevant site manager or supervisor, a replacement must be identified to take over the duties.

2.4 Provision of bonds and guarantees

Not applicable to this contract

2.5 Documentation control

- a) The information for spares to be shared electronically or hard copy.
- b) Other information provided with each spare to be shared electronic or hard copy.
- c) Information provided to be documented in such a manner that the information for each spare will be easily identifiable.

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:

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

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

2.7 Contract change management

Any changes related to this official contract to be communicated to *Service Manager*.

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

To substantiate the Defined Cost of Compensation Events, the *Contractor* shall keep records of amounts paid.

2.9 Insurance provided by the *Employer*

As stated in Contract Data and as per Table A within this Service Agreement

2.10 Training workshops and technology transfer

Not applicable to this contract

2.11 Design and supply of Equipment

Not applicable to this contract

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

2.12.1 Equipment

The *Contractor* shall hand over a serviceable plant to the *Employer* by the end of this contract.

2.12.2 Information and other things

- a) At the end of the service period the *Contractor* returns all Equipment and surplus materials to the *Employer*. Provides items of equipment for the *Employer's* use as stated in the Service Information and provides information and other things as stated in the Service Information.

2.13 Management of work done by Task Order

- a) All work is performed in accordance with the task order issued.
- b) When any emergencies do arise, *Contractor* shall adhere to the following terms:
 - i) The *Contractor* will be informed of emergencies when the *Service Manager* first becomes aware of it.
 - ii) Response time within 1 hour for any communication when the *Contractor* acknowledges the emergency.
 - iii) Provide a programme within 2 hours after notification provided to the *Contractor*

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

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

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

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

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

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

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

3.2 Environmental constraints and management

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

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

3.3 Quality assurance requirements

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

4 Procurement

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

4.1 People

4.1.1 Minimum requirements of people employed

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

4.1.2 BBBEE and preferencing scheme

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

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

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

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

[Insert the agreed ASGI-SA Compliance Schedule here]

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

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

4.2 Subcontracting

4.2.1 Preferred subcontractors

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

4.2.2 Subcontract documentation, and assessment of subcontract tenders

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

4.2.3 Limitations on subcontracting

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

4.2.4 Attendance on subcontractors

State requirements for attendance on Subcontractors, if any

4.3 Plant and Materials

4.3.1 Specifications

Refer Scope of Work

4.3.2 Correction of defects

- b) The *Service Manager* arranges with the *Employer* to allow the *Contractor* access if it is needed for correcting a Defect.
- c) The *Contractor* needs to correct a Defect within one day or when the first available opportunity arises.

4.3.3 *Contractor's* procurement of Plant and Materials

- a) The *Contractor* will do all procurement of materials required to execute the service according to own procurement processes.
- b) All materials purchased by the *Contractor* to be installed to Affected Property will be kept and preserved according to the storage relevant specification.

4.3.4 Tests and inspections before delivery

- a) The *Contractor* does not utilise those Plant and Materials which the Service Information states are to be tested or inspected before delivery until the *Service Manager* has notified the *Contractor* that they have passes the test or inspection.
- b) All holding points on QCP should have been adhered to and signed off by both parties before accepting any material or goods on site.

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

The *Employer* shall provide loading and offloading plant .

- a) Forklift
- b) Overhead crane

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

- d) The *Contractor* provides the necessary resources to carry out the service as stated in the Service Information.
- e) The *Contractor* provides everything to carry out the Service Information of this contract unless where otherwise stated in this Service Agreement. Everything that should be provided by the *Employer* is stated in this Service Agreement, anything not stated in the Service Agreement should be provided by the *Contractor* to execute the work as stated in the Service Information.

5.2 People restrictions, hours of work, conduct and records

- a) The Contractor shall provides the necessary resources to carry out the service as stated in the Service Information.
- b) The Contractor shall provides everything to carry out the Service Information of this contract unless where otherwise stated in this Service Agreement. Everything that should be provided by the Employer is stated in this Service Agreement, anything not stated in the Service Agreement should be provided by the Contractor to execute the work as stated in the Service Information.
- c) It is very important that the Contractor keeps records of his people working on the Affected Property, including those of his Subcontractors. The Service Manager shall have access to all records of the Contractor and Subcontractor at any time when deemed necessary.

5.3 Health and safety facilities on the Affected Property

Any emergency equipment or fire suppression systems to be utilized by the *Contractor* when an emergency arise.

5.4 Environmental controls, fauna & flora

General environmental requirements referred to in section 3 above, Kriel Power Station ISO14001.

5.5 Cooperating with and obtaining acceptance of Others

- a) The *Contractor* cooperates with the personnel during delivery.
- b) The *Contractor* cooperates with the *Employer's* team during site visits and in ensuring that the goods are delivered in accordance to all requirements.

5.6 Records of Contractor's Equipment

- a) The *Contractor* will at all times keep record of his equipment on site with relevant inspections carried out. Inspection reports should be accessible by the *Service Manager* at any given time when he deems necessary.
- b) All equipment or tools signed in by the *Contractor* should strictly adhere to the gate access rules and procedures.
- c) All Equipment including hired should be inspected and approved before accepted on site.
- d) The *Contractor* will keep records of all hired Equipment to execute the Service Information

5.7 Equipment provided by the Employer

The Employer shall provide loading and off-loading Equipment when required by the Contractor.

- a) Forklift
- b) Overheads crane

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

The *Employer* will provide in the way of water, waste disposal, ablutions, fire protection and lighting (etc) on the Affected Property. Power will be provided by the *Employer* the *Contractor* needs to ensure his own cabling, connections, DB Boards and CoC certificates of installations and connections.

a) Refuse Disposal

- i) The *Employer* provides special colour coded bins for refuse disposal. These bins are emptied by the *Employer* free of charge.
- ii) The *Contractor* ensures that all workers under his control strictly adhere to the correct use of refuse bins as stated in the Plant.

b) Supply of Electricity

- i) *Employer* will make available to the *Contractor* 220/230-volt electrical supply free of charge from the closest existing point of supply.
- ii) The *Contractor* is to make provision for the necessary extensions and plug points.
- iii) All Electrical boards must be inspected and tested before connecting to a power supply and then a CoC must be issued by the *Contractor*.
- iv) The *Contractor* will adhere to the Electrical Installation Regulations of 1992

c) Medical Facilities

- i) The *Contractor* provides a First Aid service to his employees and subcontractor. 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.
- ii) Outside the *Employer's* office hours, the *Employer's* First Aid Services are only available for serious injuries and life-threatening situations.
- iii) The *Employer* is entitled, however, to recover the costs incurred, in the use of the above *Employer's* facilities, from the *Contractor*.

d) Toilet Facilities

- i) The *Employer* provides the *Contractor* access to toilet facilities.
- ii) Temporary chemical toilets are provided by the *Contractor* where deemed necessary.

5.8.2 Provided by the *Contractor*

Not applicable to this contract

5.9 Control of noise, dust, water and waste

Not applicable to this contract

5.10 Hook ups to existing works

Any work performed at heights, *Contractor* must adhere to the correct safety standards, procedures and specifications stated in the health and safety risk management of Kriel Power Station.

5.11 Tests and inspections

5.11.1 Description of tests and inspections

As per the *Employer's* service information 1.2.2 to 1.2.4

5.11.2 Materials facilities and samples for tests and inspections

As per the *Employer's* service information 1.2.2 to 1.2.4

6 List of drawings

6.1 Drawings issued by the *Employer*

Not applicable to this contract