



NEC3 Term Service

Short Contract (TSSC3)

A contract between Eskom Holdings SOC Ltd
(Reg No. 2002/015527/30)

and

for **FULL REFURBISHMENT, TESTING AND DELIVERY
OF MEDIUM VOLTAGE MOTORS AT ARNOT POWER
STATION**

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C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

Title of the Contract

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

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

The offered total of the Prices exclusive of VAT is	
Value Added Tax @ 15% is	
The offered total of the Prices inclusive of VAT is	
(in words)	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf 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:

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 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 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 Tender 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, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week 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 copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____'

Schedule of Deviations

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:**For the Employer**

Signature

Name

Capacity

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

Date

C1.2 Contract Data**Data provided by the *Employer***

Clause	Statement	Data
General		
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
	If the <i>Employer</i> appoints an <i>Employer's Agent</i> , the <i>Employer's Agent</i> is:	
14.5	Name	Siphiwe Nkosi
	Address	Private Bag X2, Rietkuil 1097
	Tel No.	013 297 9787
	Fax No.	086 654 2986
	E-mail address	nkosisw@eskom.co.za
	The authority of the <i>Employer's Agent</i> is	Arnot Power Station, MV motors
11.2(5)	The <i>service</i> is	Full Refurbishment, Testing and Delivery of Medium Voltage Motors at Arnot Power Station
11.2(6)	The Service Information is in	the document called 'Service Information' in Part 3 of this contract.
30.1	The <i>starting date</i> is.	TBA
30.1	The <i>service period</i> is.	Once off
13.2	The <i>period for reply</i> is	2 weeks
50.1	The <i>assessment day</i> is the	25th of each month.
51.2	The interest rate on late payment is	0% per complete week of delay.
80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	the amount of the deductibles relevant to the event
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No

93.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
93.2(2)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body
93.4	The <i>tribunal</i> is:	arbitration.
	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	● South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.

The conditions of contract are the NEC3 Term Service Short Contract (April 2013)¹² and the following additional conditions Z1 to Z11 which 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 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z2.1 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.
- Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's*

¹ If the previous edition applies change 'April 2013' for 'September 2009'.

² State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za

obligation to Provide the Service.

- Z2.4 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 those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *service*.

Z3 Confidentiality

- Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. 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 where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z3.3 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.
- Z3.4 The taking of images (whether photographs, video footage or otherwise) of the *Employer's* 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 *Employer*. All rights in and to all such images vests exclusively in the *Employer*.
- Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

- Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates 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.

Z5 Health, safety and the environment

- Z5.1 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*:
- 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 *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.

- Z5.2 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.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

- Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the correctly assessed amount due for payment.
- Z6.2 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 clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z6.3 The *Contractor* 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.

Z7 Notifying compensation events

- Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.2

- Z8.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

- Z9.1 or had a business rescue order granted against it.

Z10 Addition to Clause 50.4

- Z10.1 If the amount due for the *Contractor's* payment of *delay damages* reaches the limits stated in a Task Order (if any), the *Employer* may terminate the *Contractor's* obligation to Provide the Service.
- Z10.2 If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *service*.

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** means, as the context requires, the *Contractor*, or any member thereof in the case of

- Party** 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 condition of contract 82 with the following:

Insurance cover 82

- 82.1 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.
- 82.2 The *Contractor* provides the insurances 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	<p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance</p>

Loss of or damage to equipment, 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
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i> property, equipment and other things used to Provide the Service) and 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

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 44 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 44 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.

Data provided by the Contractor (the Contractor's Offer)

The tendering contractor is advised to read both the NEC3 Term Service Short Contract (April 2013) and the relevant parts of its Guidance Notes (TSSC3-GN)³ in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 24 of the TSSC3 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The <i>Contractor</i> is (Name):	
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
63.2	The percentage for overheads and profit added to the Defined Cost for people is	[•]%
63.2	The percentage for overheads and profit added to other Defined Cost is	[•]%
11.2(4)	The Price List is in	the document called 'Price List' in Part 1 of this contract.
11.2(4)	The offered total of the Prices for part of the service in Part 1 of the Price List is [Enter the total of the Prices from the Price List]:	R[•] excluding VAT [in words]

³ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902, or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

The Price List is in two parts. Part 1 is for work described in the Service Information not requiring the *Employer* to issue a Task Order. Part 2 is for work to be carried out within a stated period of time on a task by Task basis and instructed by Task Order. The *service* may comprise work under Part 1 only or Part 2 only or a mix of both.

Entries in the first four columns of Part 1 of the Price List are made either by the *Employer* or the tenderer. Entries in the first four columns of Part 2 of the Price List would normally be made by the *Employer* as the Party most likely to know the kind of work which will be instructed by the issue of Task Orders. The tenderer then enters a rate for each item and multiplies it by the Expected quantity to produce the Price to be entered in the final column.

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 tenderer 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 the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters a rate for each item and multiplies it by the Expected quantity to produce the Price, to be entered in the final column.

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.

The rates and Prices entered for each item includes for all work and other things necessary to complete the item.

C2.2 Price List**Part 1**

The rates and Prices entered for each item includes for all work and other things necessary to complete the item.

No.	Job Number	Item no.	Description	Unit	Quantity	Rate	Price
1	HV2023-8042	0251115	U4D PA Fan motor (A006922/03)	EACH	1		
2	HV2023-8090	0225941	EFP Motor (C0005225/03)	EACH	1		
3	HV2023-8150	0179076	CPP Booster Pump motor (83111/02)	EACH	1		
4	HV2023-8240	0139633	AWR Pump No1 Motor (T/LM2224/02)	EACH	1		
5	HV2023-8241	0585144	Sluice Pump 7 motor (A002319/02)	EACH	1		
6	HV2023-8282	0212134	U3 CEP Pump Motor B (215-1-107)	EACH	1		
7	HV2023-8299	0251115	U6A PA Fan motor (A006920/06)	EACH	1		
8	HV2023-8333	0225941	FD Fan Motor (41/8E04/1)	EACH	1		
9	HV2023-8368	014069	Ash Pump Motor (B004099/03)	EACH	1		
10	HV2024-8021	0251115	U5 A PA Fan Motor (A002435-02)	EACH	1		
11	HV2024-8065	0225941	U4B EFP Motor (C005137/02)	EACH	1		
12	HV2024-8104	0251115	PA Fan motor (A006920/05)	EACH	1		
13	HV2023-8105	0225941	U5A EFP Motor (C005137/03)	EACH	1		
14	HV2023-8112	0251115	PA Fan motor (A006921/01)	EACH	1		
15	HV2024-8160	0585144	Sluice Pump 3 Motor (A002319/05)	EACH	1		
16	HV2024-8161	0139633	AWR Pump No 3 Motor (2015504-04)	EACH	1		
17	HV2024-8162	0139633	AWR Pump No 2 Motor (ZSM 2677)	EACH	1		
18	HV2024-8163	0139633	AWR Pump No 1 Motor (2LM2224/01)	EACH	1		
19	HV2024-8164	0139633	AWR Pump No 4 Motor (2LM5132/01)	EACH	1		

20	HV2024-8188	602735	North CW pump motor 52389/E1	EACH	1		
21	HV2024-8189	602735	North CW pump motor 2LM2438/01	EACH	1		
22	HV2024-8192	014069	Ash Pump Motor (B004136/03)	EACH	1		
23	HV2024-8193	0140649	LH FD Fan Motor (300062/01)	EACH	1		
24	HV2024-8237	0178895	U2B EFP Motor (C005056/01)	EACH	1		
25	HV2024-8238	0139633	Ash Water Return (AWR) pump motor (2LM2224/03)	EACH	1		

Total of the Prices for Part 1

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C3: Scope of Work

C3.1 Service Information

Refurbishment and repair of the MV motors as per the detailed scope of work described below.

Description of the service

1. MACHINE DETAILS (HV2023-8042)

Make	Alstom			Voltage	3300 V
Weight	2600 kg				
Material No.	0251115			Stator current	109A
Kilo Watt	520kW			Frame Size/Type	1LA1404-4
Location	PA fan Motor (A006922/03)			Speed	1485 rpm
Bearings DE & NDE	NU 222 C3 6222 C3			Shaft diameter & Length	110 & 60mm
DESCRIPTION		Unit	Expected quantity	Rate	Price
Burn out stator windings, remove old windings, clean & prepare core for rewind		EA	1		
Manufacture new coil & insulation kit		EA	1		
Rewind stator, VPI & bake (fit new pt100's & leads)		EA	1		
Skim stator feet & conduct concentricity checks		EA	1		
Re-tap all mounting holes		EA	1		
Re-tap holes & fit new jacking bolts		EA	1		
Manufacture new rotor core		EA	1		
Remove old rotor core & fit new		EA	1		
Machine off rotor short circuiting rings & remove rotor bars		EA	1		
Manufacture new rotor bars & short-circuiting rings		EA	1		
Re-bar rotor complete		EA	1		
Polish bearing journals & seal landings		EA	1		
Re-insulate de & NDE bearing housings		EA	1		
Fit new plastic fan		EA	1		
Fit new insulation strips		EA	1		
Fit new felt seal		EA	1		
Polish caps and flingers		EA	1		
Fit thrust springs to caps		EA	1		
Supply & fit new de bearing 6222 c3 + nu 222 c3 + fit new v-rings and circlips		EA	1		
Supply & fit new NDE bearing nu 222 c3 + fit new v-ring and circlips		EA	1		

Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Balance rotor at operating speed	EA	1		
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station with shaft locking device	EA	1		

2. MACHINE DETAILS (HV2023-8090)

<i>Make</i>	ACTOM		<i>Voltage</i>	11 000 V
<i>Weight</i>	17 460 kg (17.5T)			
<i>Material No.</i>	0225941		<i>Stator current</i>	355 A
<i>Kilo Watt</i>	5800 kW		<i>Frame Size/Type</i>	UC710/200
<i>Location</i>	Electric Feed Pump Motors (C005225/03)		<i>Speed</i>	1493 rpm
<i>Bearings DE & NDE</i>	WM 200mm		<i>Shaft diameter & Length</i>	199.72 & 234 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Sand blast all loose components	EA	1		
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads) 6 off	EA	1		
Clean, sand and prepare core for rewind	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Microweld & machine outer seal landing 225 x 93	EA	1		
Polish bearing journals & seal landings	EA	1		
Clean cooling tubes & overhaul heat exchanger	EA	1		

Remetal & machine 200mm new type glacier	EA	1		
Manufacture new 200mm floating labyrinth seal	EA	1		
Manufacture 225mm floating labyrinth seal	EA	1		
New aliminium oil sight glasses	EA	1		
Re-sleeve vacuum seals	EA	1		
Bearings				
Shot blast clean & paint bearing housings	EA	1		
Supply & fit new bearing probes	EA	1		
Supply and fit new pt connectors	EA	1		
Refit terminal boxes to casing	EA	1		
Spares & general				
Overhaul lifting lugs	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots and spacers	EA	1		
Replace rubber seals & gaskets	EA	1		
Balance rotor at operating speed	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		

3. MACHINE DETAILS (HV2023-8150)

Make	BOYD BROWN		Voltage	3300 V
Weight	1400 kg (1.4T)			
Material No.	0179076		Stator current	44 A
Kilo Watt	185 kW		Frame Size/Type	D 355 1LA1359
Location	CPP Booster Pump Motors (83111/02)		Speed	1487 rpm
Bearings DE & NDE	NU 322 C3 6322 C3		Shaft diameter & Length	110 & 70 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads)	EA	1		
Skim stator feet & conduct	EA	1		

concentricity checks				
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor	EA	1		
Overhaul rotor & spray with insulating varnish	EA	1		
Microweld & machine nde bearing journal 110 x 70	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new de bearing nu 322 c3 + fit new x1 100 ø circlip	EA	1		
Supply & fit new NDE bearing 6322 c3 + fit new x2 110 ø circlips	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Re-sleeve de- 240,01 & NDE- 240,01 bearing housings	EA	1		
Overhaul internal fan	EA	1		
Panelbeat external fan complete	EA	1		
FIT NEW TOP COVER- 500 X 500 X 3mm	EA	1		
Polish spacers	EA	1		
Polish all caps, flingers and flangers	EA	1		
Repair fan cowl	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor to Arnot Power Station with shaft locking device	EA	1		
4. MACHINE DETAILS (HV2023-8240)				
<i>Make</i>	GEC		<i>Voltage</i>	3300 V
<i>Weight</i>	2275 kg (2.6T)			
<i>Material No.</i>	0139633		<i>Stator current</i>	61 A
<i>Kilo Watt</i>	280 kW		<i>Frame Size/Type</i>	GKD355/400 HXR335 LD4

Location	Ash Water Return Pump Motors (T.L.M2224/02)			Speed	1486 rpm
Bearings DE & NDE	LRJ 4 ½ LJ 4 ½			Shaft diameter & Length	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price	
Stator					
Overhaul stator & spray with insulating varnish	EA	1			
Skim stator feet & conduct concentricity checks	EA	1			
Re-tap all mounting holes	EA	1			
Rotor					
Overhaul rotor & spray with insulating varnish	EA	1			
Microweld & machine nde journal 114,30 ø	EA	1			
Balance rotor at operating speed	EA	1			
Bearings					
Supply & fit new de bearing (lrj 4 1/2)	EA	1			
Supply & fit new nde bearing (lj 4 1/2)	EA	1			
Spares & general					
Supply & fit new grease pipes & nips	EA	1			
Re-insulate de & nde bearing housings	EA	1			
Clean cooling tubes & canopy	EA	1			
Sand blast all loose components	EA	1			
Panelbeat internal fan	EA	1			
Polish all caps, flingers and flangers	EA	1			
Overhaul screen and cowl	EA	1			
Fit new bolts, springs /washers	EA	1			
Fit x 2 fibreglass inserts for leads	EA	1			
Fit new v-rings 110 ø	EA	1			
Fit new earth lugs	EA	1			
Clean & polish spigots	EA	1			
Replace rubber seals & gaskets	EA	1			
Assemble and test					
Assemble motor complete	EA	1			
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1			
Clean & paint the motor & prepare for delivery	EA	1			
Customer witness test					
Supply data pack	EA	1			

Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		
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5. MACHINE DETAILS (HV2023-8241)

Make	ACTOM	Voltage	3300 V
Weight	17 460 kg (17.5T)		
Material No.	0585144	Stator current	61 A
Kilo Watt	290 kW	Frame Size/Type	MS4352
Location	Sluice Pump 7 Motor (A002319/02)	Speed	1497 rpm
Bearings DE & NDE	WM 200mm	Shaft diameter & Length	199.72 & 234 mm

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Burn out stator Windings, Remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation Kit	EA	1		
Rewind stator, VPI & Bake (Fit New Pt100's & Leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-Tap all mounting holes	EA	1		
Rotor				
Overhaul rotor and spray with insulating varnish	EA	1		
Microweld and machine coupling landing	EA	1		
Microweld and machine de journal 110,2*100mm	EA	1		
Polish all other journals and landings	EA	1		
Bearings				
Supply and fit new DE bearings NU222 and 6222C3	EA	1		
Supply and fit new NDE bearing nu219	EA	1		
Supply and fit new circlips and Vrings	EA	1		
Supply and fit new bearing probes x2	EA	1		
Supply and fit new jacking bolts	EA	1		
Supply and fit new plastic fan	EA	1		
Supply and fit new earth lugs	EA	1		
Supply and fit new PT connectors	EA	1		
Supply and fit new LED in aux box	EA	1		
Supply and fit new thrust springs x18	EA	1		
Supply and fit new desiccators	EA	1		
Reinsulate bearing housing	EA	1		

170mm				
Resleeve DE housing 200mm	EA	1		
Manufature new DE inner bearing cap as per sample and skim inner cap landing	EA	1		
Spares & general				
Supply & fit new grease pipes & fittings	EA	1		
Replace rubber seals & gaskets	EA	1		
Balance rotor at operating speed	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		

6. MACHINE DETAILS (HV2023-8282)

<i>Make</i>	GEC	<i>Voltage</i>	3300 V
<i>Material No.</i>	0248222	<i>Stator current</i>	142A
<i>Kilo Watt</i>	637kW	<i>Frame Size/Type</i>	1LA1454
<i>Location</i>	Condensate Extraction Pump Motors (215107)	<i>Speed</i>	988 rpm
<i>Bearings DE & NDE</i>	WM – 127mm	<i>Shaft diameter & Length</i>	126 & 145 mm

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator	EA	1		
Overhaul stator & spray with insulating varnish	EA	1		
Remove old and fit new feet skim new stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor	EA	1		
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings	EA	1		
Remetal & machine de & nde bearings ga bearings	EA	1		

New oil kits	EA	1		
New aluminuim oil sight glasses	EA	1		
New air breathers	EA	1		
Re-metal and machine 154mm vacuum seals	EA	1		
Repair bearing housing nips	EA	1		
Replace stripped, missing bolts and plugs	EA	1		
Shot blast clean & paint bearing housings	EA	1		
Spares & general	EA	1		
Repair de outer cap mounting holes	EA	1		
Overhaul casing	EA	1		
Overhaul loovers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test	EA	1		
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		

7. MACHINE DETAILS (HV2023-8299)

<i>Make</i>	Actom			<i>Voltage</i>	3300 V
<i>Weight</i>	2600 kg				
<i>Material No.</i>	0251115			<i>Stator current</i>	109A
<i>Kilo Watt</i>	520kW			<i>Frame Size/Type</i>	1LA1404-4
<i>Location</i>	PA fan Motors (A006920)			<i>Speed</i>	1485 rpm
<i>Bearings DE & NDE</i>	NU 222 C3 6222 C3			<i>Shaft diameter & Length</i>	110 & 60mm
DESCRIPTION		Unit	Expected quantity	Rate	Price
<u>Stator</u>					
Burn out stator windings, remove old windings, clean & prepare core for rewind		EA	1		
Manufacture new coil & insulation kit		EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads)		EA	1		
Skim stator feet & conduct concentricity checks		EA	1		
Re-tap all mounting holes		EA	1		
Re-tap holes & fit new jacking		EA	1		

bolts				
<u>Rotor</u>				
Manufacture new rotor core	EA	1		
Remove old rotor core & fit new	EA	1		
Machine off rotor short circuiting rings & remove rotor bars	EA	1		
Manufacture new rotor bars & short-circuiting rings	EA	1		
Re-bar rotor complete	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
<u>Bearings</u>				
Supply & fit new de bearing nu 222 c3 + 6222 c3	EA	1		
Supply & fit new nde bearing nu 222 c3	EA	1		
<u>Spares & general</u>				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply and fit new pt connectors	EA	1		
Re-insulate DE & NDE bearing housings	EA	1		
Manufacture new flinger	EA	1		
Supply & fit new insulators	EA	1		
Supply and fit new fan	EA	1		
Supply and fit new heaters	EA	1		
Repair stator fins	EA	1		
Panel beat cowl	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new insulation strips	EA	1		
Polish all caps and flingers.	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
<u>Assemble and test</u>				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		
8. MACHINE DETAILS (HV2023-8333)				
<i>Make</i>	Lawrence Scott		<i>Voltage</i>	11 000 V
<i>Weight</i>	10 000 kg (10T)			
<i>Material No.</i>	0178893		<i>Stator current</i>	254 A

Kilo Watt	1212 kW		Frame Size/Type	IK 7102	
Location	Forced Draught Fan Motors		Speed	735 rpm	
Bearings DE & NDE	WM 125 mm		Shaft diameter & Length	127 & 130 mm	
DESCRIPTION	Unit	Expected quantity	Rate	Price	
Stator					
Supply & fit new stator lead lugs	EA	1			
Overhaul stator & spray with insulating varnish	EA	1			
Skim stator feet & conduct concentricity checks	EA	1			
Re-tap all mounting holes	EA	1			
Re-tap holes & fit new jacking bolts	EA	1			
Rotor					
Overhaul rotor & spray with insulating varnish	EA	1			
Microweld & machine NDE inner bearing cap landing 160 x 71	EA	1			
Microweld & machine de outer seal landing 160 x 136	EA	1			
Microweld & machine NDE outer cap landing 160 x 151	EA	1			
Microweld & machine fan landing 150 x 76	EA	1			
Microweld & machine DE bearing journal 130 x 131	EA	1			
Microweld & machine NDE bearing journal 130 x 135	EA	1			
Microweld & machine DE vacuum seal 165 x 50	EA	1			
Microweld & machine NDE vacuum seal	EA	1			
Polish bearing journals & seal landings	EA	1			
Balance rotor at operating speed	EA	1			
Bearings	EA	1			
Remetal & machine de & nde bearings 127mm Laurence Scott bearings	EA	1			
Plate bearings joint face and machine back to standard	EA	1			
New brass oil level gauges	EA	1			
New felt seals	EA	1			
Repair bearing housings nips back to standard	EA	1			
Shot blast clean & paint bearing housings	EA	1			
Spares & general					
Supply & fit new desiccator	EA	1			
Supply and fit new heaters	EA	1			

Line stator core	EA	1		
Clean cooling tubes & overhaul heat exchanger	EA	1		
Sand blast all loose components	EA	1		
Panel beat canopy	EA	1		
Weld baffle mountings	EA	1		
Overhaul screen	EA	1		
Supply and fit new earth brush and holder complete	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test	EA	1		
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		

9. MACHINE DETAILS (HV2023-8368)

Make	GEC			Voltage	3 300 V
Weight	436 kg				
Material No.	0140649			Stator current	133 A
Kilo Watt	625 kW			Frame Size/Type	UD/355/100
Location	Ash Pump Motor (B004099/03)			Speed	1484 rpm
Bearings DE & NDE	NU 324 MC3 6324 C3			Shaft diameter & Length	120 & 75 mm
DESCRIPTION		Unit	Expected quantity	Rate	Price
Stator					
Overhaul stator & spray with insulating varnish		EA	1		
Skim stator feet & conduct concentricity checks		EA	1		
Re-tap all mounting holes		EA	1		
Re-tap holes & fit new jacking bolts		EA	1		
Rotor					
Manufacture new rotor core		EA	1		
Remove old rotor core & fit new		EA	1		
Machine off rotor short circuiting rings & remove rotor bars		EA	1		
Manufacture new rotor bars & short-circuiting rings		EA	1		
Re-bar rotor complete		EA	1		
Final machine rotor		EA	1		

Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings	EA	1		
Supply & fit new DE bearing	EA	1		
Supply & fit new NDE bearing	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply and fit new pt connectors	EA	1		
Re-insulate DE & NDE bearing housings	EA	1		
Supply and fit new fan	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new insulation strips	EA	1		
Panel beat casing + cowl	EA	1		
Polish all caps, flingers and flangers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		

10. MACHINE DETAILS (HV2024-8021)

<i>Make</i>	Actom		<i>Voltage</i>	3300 V
<i>Weight</i>	2600 kg		<i>Stator current</i>	109A
<i>Material No.</i>	0251115		<i>Frame Size/Type</i>	1LA1404-4
<i>Kilo Watt</i>	520kW		<i>Speed</i>	1488 rpm
<i>Location</i>	PA fan Motor (A002435/02)		<i>Shaft diameter & Length</i>	110 & 60mm
<i>Bearings DE & NDE</i>	NU 222 C3 6222 C3			
DESCRIPTION	Unit	Expected quantity	Rate	Price
<u>Stator</u>				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
<u>Rotor</u>				
Manufacture new rotor core	EA	1		

Remove old rotor core & fit new	EA	1		
Machine off rotor short circuiting rings & remove rotor bars	EA	1		
Manufacture new rotor bars & short-circuiting rings	EA	1		
Re-bar rotor complete	EA	1		
Final machine rotor	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing	EA	1		
Supply & fit new NDE bearing	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply and fit new pt connectors	EA	1		
Re-insulate DE & NDE bearing housings	EA	1		
Supply and fit new fan	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new insulation strips	EA	1		
Panel beat casing + cowl	EA	1		
Polish all caps, flingers and flangers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		
11. MACHINE DETAILS (HV2024-8065)				
Make	ACTOM		Voltage	11 000 V
Weight	17 460 kg (17.5T)			
Material No.	0237313		Stator current	355 A
Kilo Watt	5800 kW		Frame Size/Type	UC710/224
Location	Electric Feed Pump Motors (C005137/02)		Speed	1493 rpm
Bearings DE & NDE	WM 200mm		Shaft diameter & Length	199.72 & 234 mm
DESCRIPTION		Unit	Expected quantity	Rate
				Price

<u>Stator</u>				
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads)	EA	1		
Attempt to repair stator core hot spots	EA	1		
Supply & fit new stator lead lugs	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
<u>Rotor</u>				
Overhaul rotor & spray with insulating varnish	EA	1		
Pre machine coupling landing + micro weld 180 x 310	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
<u>Bearings</u>				
Re-metal & machine DE & NDE bearings 200mm new type glacier bearings	EA	1		
Manufacture new 200mm floating lab seals	EA	1		
Manufacture new 225mm floating lab seals	EA	1		
Re-insulate bearing housings	EA	1		
Re-sleeve vacuum seals	EA	1		
Replace stripped, missing bolts and plugs	EA	1		
Repair oil pick up rings and fit new screws	EA	1		
New aluminium oil sight glasses	EA	1		
Shot blast clean & paint bearing housings	EA	1		
<u>Spares & general</u>				
Supply & fit new bearing probes	EA	1		
Supply & fit new desicator	EA	1		
Supply and fit new insulation board	EA	1		
Supply and fit new heaters	EA	1		
Supply and fit new mono blocks	EA	1		
Fit new starpoint bar	EA	1		
Supply and fit new pt connectors	EA	1		
Supply and fit new filtered terminal box 2 off	EA	1		
Fit new insulation strips	EA	1		
Fit new bolts, springs /washers	EA	1		
Fit new earth lugs	EA	1		

Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		

12. MACHINE DETAILS (HV2024-8104)

Make	Alstom	Voltage	3300 V
Weight	2 000 kg		
Material No.	0251115	Stator current	109A
Kilo Watt	520 kW	Frame Size/Type	JKD 355/400
Location	U1 PA fan Motor (A006921-01)	Speed	1485 rpm
Bearings DE & NDE	NU 222 C3 6222 C3	Shaft diameter & Length	120 & 50

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Micro weld & machine coupling landing 95 x 210	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing NU 222 + 6222 C3	EA	1		
Supply & fit new NDE bearing nu 222 C3	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Re-insulate de & nde bearing housings	EA	1		
Manufacture new bearing cap	EA	1		
Re- sleeve nde internal fan	EA	1		
Supply and fit new fan	EA	1		
Fit new felt seals in caps	EA	1		

Clean cooling fins	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new insulation strips	EA	1		
Overhaul screen and cowl + aluminium fan	EA	1		
Fit new bolts, springs /washers	EA	1		
Remove, clean & re-fit coupling	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assembly and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		

13. MACHINE DETAILS (HV2023-8105)

Make	ACTOM		Voltage	11 000 V
Weight	17 460 kg (17.5T)			
Material No.	0225941		Stator current	355 A
Kilo Watt	5800 kW		Frame Size/Type	UC710/200
Location	Electric Feed Pump Motors (C005137/03)		Speed	1493 rpm
Bearings DE & NDE	WM 200mm		Shaft diameter & Length	199.72 & 234 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator lead studs	EA	1		
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Micro weld & machine DE bearing journal 200 x 170	EA	1		
Micro weld & machine NDE bearing journal 200 x 180	EA	1		

polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Re-metal & machine DE & NDE bearings 200mm new type glacier bearings	EA	1		
Manufacture new 200mm floating lab seals	EA	1		
Manufacture new 225mm floating lab seals	EA	1		
Re-insulate bearing housings				
Re-sleeve vacuum seals				
Replace stripped, missing bolts and plugs				
Repair oil pick up rings and fit new screws				
New aluminium oil sight glasses				
Shot blast clean & paint bearing housings	EA	1		
Spares & general				
Supply & fit new bearing probes	EA	1		
Supply & fit new desiccator	EA	1		
Supply and fit new insulation board	EA	1		
Supply and fit new heaters	EA	1		
Supply and fit new mono blocks	EA	1		
Fit new Starpoint bar	EA	1		
Supply and fit new pt connectors	EA	1		
Supply and fit new filtered terminal box 2 off	EA	1		
Fit new insulation strips	EA	1		
Fit new bolts, springs /washers	EA	1		
Clean cooling tubes & overhaul heat exchanger	EA	1		
Overhaul canopy screens	EA	1		
Remove, clean & re-fit coupling x 2	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		
14. MACHINE DETAILS (HV2024-8112)				
Make	Alstom		Voltage	3300 V

Weight	2 000 kg		
Material No.	0179083	Stator current	109A
Kilo Watt	520 kW	Frame Size/Type	JKD 355/400
Location	U1 PA fan Motor (A006921-01)	Speed	1485 rpm
Bearings DE & NDE	NU 222 C3 6222 C3	Shaft diameter & Length	120 & 50

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, vpi & bake (fit new pt100's & leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Micro weld & machine de bearing journal 110 x 60	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing nu 222 + 6222 c3	EA	1		
Supply & fit new NDE bearing nu 222 c3	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Re-insulate DE & NDE bearing housings	EA	1		
Manufacture new de outer bearing cap	EA	1		
Re- sleeve NDE internal fan	EA	1		
Supply and fit new fan	EA	1		
Fit new felt seals in caps	EA	1		
Clean cooling fins	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new insulation strips	EA	1		
Overhaul screen and cowl + aluminium fan	EA	1		
Fit new bolts, springs /washers	EA	1		
Remove, clean & re-fit coupling	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		

Replace rubber seals & gaskets	EA	1		
Assembly and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
15. MACHINE DETAILS (HV2024-8160)				
Make	ACTOM		Voltage	3300 V
Weight	17 460 kg (17.5T)			
Material No.	0585144		Stator current	61 A
Kilo Watt	290 kW		Frame Size/Type	MS4352
Location	Sluice Pump 3 Motor (A002319/05)		Speed	1497 rpm
Bearings DE & NDE	WM 200mm		Shaft diameter & Length	199.72 & 234 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing NU 222 + 6222 C3	EA	1		
Supply & fit new NDE bearing NU219 C3	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply and fit new PT connectors + new LED light	EA	1		
Re-sleeve DE & NDE bearing housings	EA	1		
Supply & fit new insulators	EA	1		
Overhaul external fan	EA	1		
Supply and fit new thrust springs	EA	1		
Fit new felt seals in caps	EA	1		
Fit new insulation strips in caps	EA	1		

Fit new taper lock bushing for coupling	EA	1		
Fit new bolts, springs /washers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
Plastic wrap unit (heat shrink plastic wrap)				
16. MACHINE DETAILS (HV2024-8161)				
<i>Make</i>	ABB		<i>Voltage</i>	3300 V
<i>Weight</i>	2275 kg (2.6T)			
<i>Material No.</i>	0139633		<i>Stator current</i>	61 A
<i>Kilo Watt</i>	280 kW		<i>Frame Size/Type</i>	GKD355/400 HXR335 LD4
<i>Location</i>	Ash Water Return Pump 3 Motor (2015504-04)		<i>Speed</i>	1482 rpm
<i>Bearings DE & NDE</i>	6319 C3 6322 C3		<i>Shaft diameter & Length</i>	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, VPI & bake (fit new PT100's & leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing 6319 C3	EA	1		
Supply & fit new NDE bearing	EA	1		

6322 C3				
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply & fit new auxiliary box complete 2 off	EA	1		
Supply & fit new ZORC 0.1µF	EA	1		
Manufacture new ZORC box	EA	1		
Supply new top covers 2 off	EA	1		
Fit new bolts, springs /washers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
Plastic wrap unit (heat shrink plastic wrap)	EA	1		
17. MACHINE DETAILS (HV2024-8162)				
Make	ABB		Voltage	3300 V
Weight	2275 kg (2.6T)			
Material No.	0139633		Stator current	61 A
Kilo Watt	280 kW		Frame Size/Type	GKD355/400 HXR335 LD4
Location	Ash Water Return Pump 2 Motor (2015504-04)		Speed	1482 rpm
Bearings DE & NDE	6319 C3 6322 C3		Shaft diameter & Length	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				

Supply & fit new DE bearing 6319 C3	EA	1		
Supply & fit new NDE bearing 6322 C3	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Supply & fit new auxiliary box complete LED	EA	1		
Supply & fit new Zorc 0.1µf	EA	1		
Re-sleeve DE & NDE bearing housings	EA	1		
Sand blast all loose components + rotor core	EA	1		
Overhaul external fan	EA	1		
Supply and fit new thrust springs	EA	1		
Polish all caps, flingers and flangers	EA	1		
Fit new bolts, springs /washers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
Plastic wrap unit (heat shrink plastic wrap)	EA	1		
18. MACHINE DETAILS (HV2024-8163)				
<i>Make</i>	ABB		<i>Voltage</i>	3300 V
<i>Weight</i>	2275 kg (2.6T)			
<i>Material No.</i>	0139633		<i>Stator current</i>	61 A
<i>Kilo Watt</i>	280 kW		<i>Frame Size/Type</i>	GKD355/400 HXR335 LD4
<i>Location</i>	Ash Water Return Pump 1 Motor (2LM2224/01)		<i>Speed</i>	1482 rpm
<i>Bearings DE & NDE</i>	6319 C3 6322 C3		<i>Shaft diameter & Length</i>	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Supply & fit new stator lead lugs	EA	1		
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		

Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing LRJ4 1/2	EA	1		
Supply & fit new NDE bearing LIJ4 1/2	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Re-sleeve DE & NDE bearing housings	EA	1		
Clean cooling tubes in canopy	EA	1		
Sand blast all loose components	EA	1		
Panel beat casing + cooler	EA	1		
Fit new cowl screen	EA	1		
Fit new bolts, springs /washers	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
Plastic wrap unit (heat shrink plastic wrap)	EA	1		
19. MACHINE DETAILS (HV2024-8164)				
Make	ABB		Voltage	3300 V
Weight	2275 kg (2.6T)			
Material No.	0139633		Stator current	61 A
Kilo Watt	280 kW		Frame Size/Type	GKD355/400 HXR335 LD4
Location	Ash Water Return Pump 4 Motor (2LM15132/01)		Speed	1482 rpm
Bearings DE & NDE	6319 C3 6322 C3		Shaft diameter & Length	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct	EA	1		

concentricity checks				
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Micro weld & machine DE bearing journal 120 x 45	EA	1		
Micro weld & machine NDE bearing journal 120 x 45	EA	1		
Micro weld & machine fan landing landing 40 x 60				
Polish bearing journals & seal landings				
Balance rotor at operating speed				
Bearings				
Supply & fit new DE bearing NU324 C3	EA	1		
Supply & fit new NDE bearing 6324 C3	EA	1		
Spares & general				
Supply & fit new grease pipes	EA	1		
Supply & fit new terminal box complete	EA	1		
Re-sleeve DE & NDE bearing housings	EA	1		
Clean cooling tubes	EA	1		
Polish all caps, flingers and flanges	EA	1		
Overhaul screen and cowl	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
Plastic wrap unit (heat shrink plastic wrap)	EA	1		

20. MACHINE DETAILS (HV2024-8188)

<i>Make</i>	Laurence Scott	<i>Voltage</i>	3300 V
<i>Weight</i>	32 000 kg	<i>Stator current</i>	578 A
<i>Material No.</i>	602735	<i>Frame Size/Type</i>	IKV253/50 UVN254/575
<i>Kilo Watt</i>	3 200HP	<i>Speed</i>	211 rpm
<i>Location</i>	North Cooling Water Pump Motor		

	52389/E1			
Bearings DE & NDE	Glacier BP 1109/4 Glacier BP 1182/5		Shaft diameter & Length	152.25 & 167 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Supply & fit new Stator Lead Lugs	EA	1		
Manufacture new Stator Core	EA	1		
Remove old stator Core & fit new	EA	1		
Burn out stator windings, remove old windings, clean & prepare core for Rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, VPI & bake (fit new Pt100's & leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Manufacture new rotor core	EA	1		
Remove old rotor core & fit new	EA	1		
Machine off rotor short circuiting rings & remove rotor bars	EA	1		
Manufacture new rotor bars & short-circuiting rings	EA	1		
Re-bar rotor complete	EA	1		
Final machine rotor	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Re-metal & machine thrust pads 12 Off	EA	1		
Re-metal & machine 12" journal pads 8 Off	EA	1		
Re-metal & machine 14" journal pads 8 Off	EA	1		
Fit new breathers 2 Off	EA	1		
Pressure test & clean water coolers	EA	1		
Fit new 6" Oil Level Gauges 2 Off	EA	1		
Polish & re-size thrust collar & clean	EA	1		
Shot blast, clean & paint DE & NDE bearing housings	EA	1		
Spares & general				
Supply & fit new oil pipes + fittings and valves	EA	1		
Supply & fit new bearing probes 3 Off	EA	1		
Supply & fit new auxiliary box complete	EA	1		
Fit new sights glasses	EA	1		
Fit new insulation tube in end - shields	EA	1		

Panel beat top cover + fans	EA	1		
Overhaul top screens + railings	EA	1		
Supply and fit new element heaters	EA	1		
Supply and fit new VA 400 X 390 (V-Ring)	EA	1		
Manufacture and fit new blades for rotor	EA	1		
Sand blast all loose components	EA	1		
Fit new earth lugs	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct No Load Test at full voltage - Full Bearing Run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer Witness Test	EA	1		
Supply Data Pack	EA	1		
Deliver Motor Back to Site with Shaft Locking Device	EA	1		
Plastic Wrap Unit (Heat Shrink Plastic Wrap)	EA	1		

21. MACHINE DETAILS (HV2024-8189)

<i>Make</i>	GEC	<i>Voltage</i>	3300 V
<i>Weight</i>	32 000 kg	<i>Stator current</i>	495 A
<i>Material No.</i>	602735	<i>Frame Size/Type</i>	IKV253/50 UVN254/575
<i>Kilo Watt</i>	2 165 KW	<i>Speed</i>	211 rpm
<i>Location</i>	North Cooling Water Pump Motor 2LM2438/01	<i>Shaft diameter & Length</i>	152.25 & 167 mm
<i>Bearings DE & NDE</i>	Glacier BP 1109/4 Glacier BP 1182/5		

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Supply & fit new stator lead lugs	EA	1		
Manufacture new stator core	EA	1		
Remove old stator core & fit new	EA	1		
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, VPI & bake (fit new pt100's & leads)	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Manufacture new rotor core	EA	1		

Remove old rotor core & fit new	EA	1		
Machine off rotor short circuiting rings & remove rotor bars	EA	1		
Manufacture new rotor bars & short-circuiting rings	EA	1		
Re-bar rotor complete	EA	1		
Final machine rotor	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Re-metal & Machine 18 Thrust Pads	EA	1		
Re-metal & Machine 360mm Guide Bush Bearing	EA	1		
Re-metal & Machine 410mm Guide Bush Bearing	EA	1		
Pressure Test & Clean Cooler	EA	1		
Fit New Oil Level Sight Glass	EA	1		
Replace Stripped, Missing Bolts & Plugs	EA	1		
Polish & clean Thrust Collar	EA	1		
Shot blast, clean & paint Housings	EA	1		
Spares & general				
Supply & Fit New Oil Pipes + Fittings And Valves	EA	1		
Supply & Fit New Bearing Probes	EA	1		
Supply & Fit New Auxiliary Box Complete	EA	1		
Sit New Sights Glasses	EA	1		
Supply And Fit New Element Heaters	EA	1		
Supply And Fit New VA 400 X 390 (V-Ring)	EA	1		
Manufacture and Fit New Blades for Rotor	EA	1		
Sand blast all loose Components	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Supply & fit new oil pipes + fittings and valves	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct No Load Test at full voltage - Full Bearing Run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer Witness Test	EA	1		
Supply Data Pack	EA	1		
Deliver Motor Back to Site with Shaft Locking Device	EA	1		
Plastic Wrap Unit (Heat Shrink Plastic Wrap)	EA	1		

22. MACHINE DETAILS (HV2024-8192)

Make	GEC		Voltage	3 300 V
Weight	436 kg			
Material No.	0140649		Stator current	133 A
Kilo Watt	625 kW		Frame Size/Type	UD355/100
Location	Ash Pump Motors (B004136/03)		Speed	1484 rpm
Bearings DE & NDE	NU 324 MC3 6324 C3		Shaft diameter & Length	120 & 75 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Remove damaged leads and fit new leads	EA	1		
Overhaul stator & spray with insulating varnish	EA	1		
Fit New Feet + Skim Stator Feet & Conduct Concentricity Checks	EA	1		
Re-Tap All Mounting Holes	EA	1		
Re-Tap Holes & Fit New Jacking Bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Microweld & machine coupling landing 100 X 200	EA	1		
Microweld & machine NDE journals 120 X 50	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing NU 324 C3	EA	1		
Supply & Fit New NDE bearing 6324 C3	EA	1		
Spares & general				
Supply & Fit New Grease Pipes	EA	1		
Supply & Fit New Bearing Probes	EA	1		
Supply & Fit New desiccator	EA	1		
Re-Insulate DE & NDE bearing housings	EA	1		
Clean cooling tubes & overhaul heat exchanger	EA	1		
Fit new insulation strips	EA	1		
Polish all caps, flanges and flanges	EA	1		
Fit New Earth Lugs	EA	1		
Clean & Polish Spigots	EA	1		
Replace Rubber Seals & Gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		

Supply data pack	EA	1		
Deliver motor back to Arnot Power Station site with shaft locking device	EA	1		
23. MACHINE DETAILS (HV2024-8193)				
<i>Make</i>	AEI		<i>Voltage</i>	3300 V
<i>Weight</i>	8 900 kg			
<i>Material No.</i>	0178895		<i>Stator current</i>	255 A
<i>Kilo Watt</i>	1625HP		<i>Frame Size/Type</i>	TIK42/60
<i>Location</i>	U6 LH FD Fan motor (300062/01)		<i>Speed</i>	743 rpm
<i>Bearings DE & NDE</i>	WM 152.25 mm		<i>Shaft diameter & Length</i>	152.25 & 167 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price
<u>Stator</u>				
Supply & fit new stator lead lugs	EA	1		
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
<u>Rotor</u>				
Microweld & machine de bearing journal	EA	1		
Microweld & machine nde bearing journal	EA	1		
Microweld & machine de seal landing sep 1 170 x 40	EA	1		
Microweld & machine de seal landing sep 2 177 x 40	EA	1		
Microweld & machine nde seal landing sep 1 170 x 40	EA	1		
Microweld & machine de seal landing sep 2 177 x 40	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
<u>Bearings</u>				
Re-metal & machine 5" michell bearing	EA	1		
Braze up joints, re-metal & machine & machine od back to standard 5" michell bearing	EA	1		
Fit new felt seals 4 off 18mm x 18mm	EA	1		
Fit new 6" oil level gauges 2 off	EA	1		
Ream housing dowl holes to suit 10mm dowl pins	EA	1		
Fit new dowl pins 4 off	EA	1		
manufacture new oil rings 4 off	EA	1		
Skim out, re-metal & machine	EA	1		

flame proof seals back to standard				
Fit new felt seals 2 off 10mm x 10mm	EA	1		
Shot blast, clean & paint DE & NDE bearing housings	EA	1		
Spares & general				
Supply & fit new inlet + outlet pipes	EA	1		
Supply & fit new bearing probes	EA	1		
Manufacture new cowl halves for fan	EA	1		
Clean cooling tubes	EA	1		
Fit new sight glasses	EA	1		
Overhaul shaft guard	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		

24. MACHINE DETAILS (HV2024-8237)

Make	ACTOM	Voltage	11 000 V
Weight	17 460 kg (17.5T)		
Material No.	0237313	Stator current	361 A
Kilo Watt	5800 kW	Frame Size/Type	UC710/224
Location	Electric Feed Pump Motors (C005056/01)	Speed	1491 rpm
Bearings DE & NDE	WM 200mm	Shaft diameter & Length	199.72 & 234 mm

DESCRIPTION	Unit	Expected quantity	Rate	Price
Stator				
Overhaul stator & spray with insulating varnish	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Manufacture new rotor core	EA	1		
Remove old rotor core & fit new	EA	1		
Machine off rotor short circuiting rings & remove rotor bars	EA	1		
Manufacture new rotor bars & short-circuiting rings	EA	1		

Re-bar rotor complete	EA	1		
Final machine rotor	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Re-metal & machine 180mm new type glacier bearings	EA	1		
Manufacture new 200mm floating lab seals	EA	1		
Re-insulate bearing housings	EA	1		
Replace stripped missing bolts & plugs	EA	1		
New aluminium oil sight glasses	EA	1		
Shot blast clean & paint bearing housings	EA	1		
Spares & general				
Supply & fit new bearing probes	EA	1		
Supply & fit new mono blocks	EA	1		
Clean canopy complete	EA	1		
Overhaul fans	EA	1		
Overhaul baffles	EA	1		
Supply and fit new pt connectors	EA	1		
Fit new bolts , springs /washers	EA	1		
Supply and fit new earth ring and holder complete	EA	1		
Supply & fit new earth straps	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots				
Replace rubber seals & gaskets				
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Deliver motor back to site with shaft locking device	EA	1		
25. MACHINE DETAILS (HV2024-8238)				
Make	Alstom		Voltage	3300 V
Weight	2275 kg (2.6T)			
Material No.	0139633		Stator current	61 A
Kilo Watt	280 kW		Frame Size/Type	GKD355/400 HXR335 LD4
Location	Ash Water Return Pump Motor (2LM 2224-03)		Speed	1489 rpm
Bearings DE & NDE	6319 C3 6322 C3		Shaft diameter & Length	114 & 65 mm
DESCRIPTION	Unit	Expected quantity	Rate	Price

Stator				
Supply & fit new stator lead lugs	EA	1		
Burn out stator windings, remove old windings, clean & prepare core for rewind	EA	1		
Manufacture new coil & insulation kit	EA	1		
Rewind stator, VPI & bake (fit new pt100's & leads)	EA	1		
Remove damaged pt's and fit new 6 off	EA	1		
Skim stator feet & conduct concentricity checks	EA	1		
Re-tap all mounting holes	EA	1		
Re-tap holes & fit new jacking bolts	EA	1		
Rotor				
Overhaul rotor & spray with insulating varnish	EA	1		
Polish bearing journals & seal landings	EA	1		
Balance rotor at operating speed	EA	1		
Bearings				
Supply & fit new DE bearing LRJ 4 1/2	EA	1		
Supply & fit new NDE bearing LJ4 1/2	EA	1		
Spares & general				
Supply & fit new grease pipes & nips	EA	1		
Clean cooling tubes & canopy	EA	1		
Polish all caps, flingers and flangers	EA	1		
overhaul ext fan	EA	1		
Fit new bolts, springs /washers	EA	1		
Supply & fit new earth lugs 2 off	EA	1		
Supply & fit new stick & seals	EA	1		
Fit new earth lugs	EA	1		
Clean & polish spigots	EA	1		
Replace rubber seals & gaskets	EA	1		
Assemble and test				
Assemble motor complete	EA	1		
Conduct no load test at full voltage - full bearing run with temperature & vibration readings	EA	1		
Clean & paint the motor & prepare for delivery	EA	1		
Customer witness test	EA	1		
Supply data pack	EA	1		
Plastic wrap unit (heat shrink plastic wrap)	EA	1		
Deliver motor back to site with shaft locking device	EA	1		

<u>General Specifications:</u>		
Health and Safety requirements		
Environmental requirements		
Site regulations and access control		
<u>Technical specifications:</u>		
240-89217674 Refurbishment and Repair of Power Station Electric Motor Work Instruction	Latest revision	

3. Constraints on how the *Contractor* Provides the Service

NONE

3.1 Meetings

Progress meetings, 2nd week of each month

3.2 Use of standard forms

All equipment must be supplied in accordance with the specifications as stated in 1.2. If any clarity is required on specifications, the contractor should contact Service Manager.

The contractor must submit QCP's to the Service Manager once repair work is completed for acceptance and approval.

Test reports must be submitted to Service Manager after completion.

3.3 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;

- The total of
 - The Price for each lump sum item in the Price List or Task Order which the *Contractor* has completed;
 - Where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate,
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- (add other as required)

The *Contractor* attaches the detail assessment of all work done for each item in the Price List to each tax invoice showing

- the Price for each lump sum item in the Price List or Task Order which the *Contractor* has completed and
- where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.

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

3.4 Records of Defined Cost

In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, plant and materials, work subcontracted by the *Contractor* and equipment. [See clause 11.2(2) and 63.2]. State in what form these records are to be kept and how accessed by the *Employer*.

3.5 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 *Employer* 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.

3.6 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.

3.7 Cataloguing requirements by the *Contractor*

State whether cataloguing is applicable, if it is, reference the requirements for cataloguing that need to be satisfied by the *Contractor* (consult Procurement Instruction Number 1 of 2018 – Incorporating Cataloguing into the Procurement Environment, Unique Identifier 240-1289988974).

4. Requirements for the plan

A program and /or plan to be submitted to the Employer's representative, detailing the scope for each motor and estimates completion dates

5. Services and other things provided by the *Employer*

Describe what the *Employer* will provide such as services (including water and electricity) and "free issue" plant and materials and equipment.

Item	Date by which it will be provided
None	

6. Property affected by the service

Medium Voltage Motors.

Task Order

Task Order form for use when work within the *service* is instructed to be carried out within a stated period of time on a Task by Task basis

Task Order No. [●] service [●]

To: [●]..... (Contractor)

I propose to instruct you to carry out the following task:

Description [●]

Starting date [●]

Completion Date [●]

Delay damages per week [●]

Please submit your price and programme proposals below.

Signed: _____ Date _____

(for *Employer*)

Total of Prices for items of work on the Price List
(details attached)

R.

Total of Prices for items of work not on the Price List
(details attached).

R. _____

Total of the Prices for this Task Order R

The programme for the Task is [ref] (attached)

Signed: _____ Date _____

(for *Contractor*)

I accept the above price and programme and instruct you to carry out the Task

Signed: _____ Date: _____

(for *Employer*)