

The provision for the calibration of flow laboratory measuring instruments for a period of 3 years on an as and when required basis



NEC3 Term Service Contract (TSC3)

**THE PROVISION FOR THE CALIBRATION OF FLOW LABORATORY MEASURING
INSTRUMENTS FOR A PERIOD OF 3 YEARS ON AN AS AND WHEN REQUIRED BASIS**

**Between ESKOM HOLDINGS SOC LIMITED
(Reg No. 2002/015527/06)**

and (Reg No.)

**for The provision for the calibration of flow laboratory
measuring instruments for a period of 3 years on an
as and when required basis**

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CONTRACT No.

The provision for the calibration of flow laboratory measuring instruments for a period of 3 years on an as and when required basis

PART C1: AGREEMENTS & CONTRACT DATA

Contents:	No of pages
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C1.1 Form of Offer & Acceptance

Offers

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

The provision for the calibration of flow laboratory measuring instrument for a period of years as an when required basis

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

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

Options A	The offered total of the Prices exclusive of VAT is	
	Sub total	
	Value Added Tax @ 15% is	

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

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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 original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness


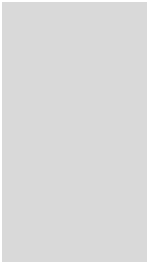
Date

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C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	X1: Price adjustment for inflation
		X2: Changes in the law
		X9: Transfer of rights
		X10: Employer's Agent
		X11: Termination by the Employer
		X17: Low services damages
		X18: Limitation of liabilities
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract (June 2005) ¹	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Limited (Reg No: 2002/015527/06), a juristic person 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.	011 800 8111
	Fax No.	011 800 4472
10.1	The <i>Service Manager</i> is (name):	Sello Ndlovu
	Address	Eskom Research and Innovation centre, Lower Germiston, Rosherville, Cleveland.
	Tel	011 800 6427
	Fax	086 668 1103

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

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	e-mail	ndlovupe@eskom.co.za
11.2(2)	The Affected Property is	Eskom Research & Innovation Centre
11.2(13)	The <i>service</i> is	The provision for the calibration of flow laboratory measuring instruments for a period of 3 years on an as and when required basis
11.2(14)	The following matters will be included in the Risk Register	None
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	N/A
2	The Contractor's main responsibilities	(If the optional statement for this section is not used, no data will be required for this section)
21.1	The <i>Contractor</i> submits a first plan for acceptance within	
3	Time	
30.1	The <i>starting date</i> is.	TBC
30.1	The <i>service period</i> is	TBC
4	Testing and defects	No data is required for this section of the <i>conditions of contract</i> .
5	Payment	
50.1	The <i>assessment interval</i> is	Not applicable
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	As per the invoice
51.4	The <i>interest rate</i> is	<p>(i) zero percent above 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 (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor</p>

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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	(If the optional statement for this section is not used, no data will be required for this section)
	These are additional compensation events:	N/A.
7	Use of Equipment Plant and Materials	No data is required for this section of the <i>conditions of contract</i>.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	1. Natural disaster 2. Faulty machines
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	as stated for "Format TSC3" available on http://www.eskom.co.za/live/content.php?Item_ID=9248 (See Annexure A for basic guidance).
83.1	The <i>Employer</i> provides these additional insurances	as stated for "Format TSC3" available on http://www.eskom.co.za/live/content.php?Item_ID=9248 (See Annexure A for basic guidance)
83.1	The minimum amount of cover for insurance against loss and damage caused by the <i>Contractor</i> to the <i>Employer's</i> property is	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/live/content.php?Item_ID=9248
83.1	The minimum amount of cover for loss of or damage to Plant and Materials provided by the <i>Employer</i> is:	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/live/content.php?Item_ID=9248
83.1	The minimum amount of cover for insurance in respect of 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 for any one event is:	whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i>.
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130

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injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is:

of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands)..

9	Termination	There is no Contract Data required for this section of the <i>conditions of contract</i> .
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 service at intervals no longer than	4 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is (Name)	To be appointed when a dispute arise.
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of the Joint Civils Division of the South African Institution of Civil Engineering. (See www.jointcivils.co.za)
W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg, 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.
12	Data for secondary Option clauses	
X1.1	The index is	The Price Adjustment Factor is the average CPI for the previous 12 months (skipping the prior month) as published by Statistics SA.

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X1.2	The calculation to establish the CPA is:	<p>The average of the index of the StatsSA, PO141 CPI Headline Table B2, for the previous 12 months (skipping the prior month due to publishing delays). Rounded-off to 2 decimal places.</p> <p>For example, if the first escalation is due on the 1st October 2021, the CPA is calculated as the average of the index from September 2020 to August 2021. For the second escalation, the CPA is calculated as the average of the index from September 2021 to August 2022 etc.</p>
X1	Price adjustment for inflation	No data is required for this Option
X2	Changes in the law	
X9	Transfer of rights	
X10	Employer's Agent	
X11	Termination by the employer	
X18	Limitation of liability	
Z	The additional conditions of contract are	Z1 to Z11 always apply.
Z1	Cession delegation and assignment	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry and the Electricity Distribution Industry.	
Z2	Joint ventures	
Z2.1	If the <i>Contractor</i> constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the <i>Employer</i> for the performance of this contract.	
Z2.2	Unless already notified to the <i>Employer</i> , the persons or organisations notify the <i>Service Manager</i> within two weeks of the Contract Date of the key person who has the authority to bind the <i>Contractor</i> on their behalf.	
Z2.3	The <i>Contractor</i> does not substantially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the <i>Employer</i> having been given to the <i>Contractor</i> in writing.	
Z3	Change of Broad Based Black Economic Empowerment (B-BBEE) status	
Z3.1	Where a change in the <i>Contractor's</i> legal status, ownership or any other change to his business composition or business dealings results in a change to the <i>Contractor's</i> B-BBEE status, the <i>Contractor</i> notifies the <i>Employer</i> within seven days of the change.	
Z3.2	The <i>Contractor</i> is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the <i>Service Manager</i> within thirty days of the notification or as otherwise instructed by the <i>Service Manager</i> .	

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- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Ethics

- Z4.1 Any offer, payment, consideration, or benefit of any kind made by the *Contractor*, which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as an inducement or reward for the award or in execution of this contract constitutes grounds for terminating the *Contractor's* obligation to Provide the Service or taking any other action as appropriate against the *Contractor* (including civil or criminal action).
- Z4.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Service if the *Contractor* (or any member of the *Contractor* where the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.

Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Contractor* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice.

- Z4.3 Notwithstanding the provisions of core clause 90.2, the procedures on termination in terms of this clause are P1, P2 and P4 as stated in the core clause 92 and the amount due is A1 and A3 as stated in core clause 93.

Z5 Confidentiality

- Z5.1 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.
- Z5.2 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*.
- Z5.3 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.
- Z5.4 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*.

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Z5.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z6 Waiver and estoppel: Add to core clause 12.3:

Z6.1 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.

Z7 Health, safety and the environment: Add to core clause 27.4

Z7.1 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 2003 (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.

Z7.2 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.

Z8 Provision of a Tax Invoice and interest. Add to core clause 51

Z8.1 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.

Z8.2 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.

Z8.3 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.

Z9 Notifying compensation events

Z9.1 Delete from the last sentence in core clause 61.3, "unless the *Service Manager* should have notified the event to the *Contractor* but did not".

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Z10 *Employer's limitation of liability*

- Z10.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z10.2 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 under the compensation events stated in this contract.

Z11 **Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":**

- Z11.1 or had a judicial management order granted against it.

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Annexure A: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. Details of the insurance itself are available from the internet web link given below.

1. Services provided in a TSC3 contract could include some element of construction or refurbishment as well as a continuous maintenance or operational service activity. If an event occurs which causes loss or damage, a claim could be made either against the *Employer's* "works" type policy which may be in place for the *Employer's* portion of the Affected Property concerned or against the *Employer's* assets policy which may be in place for the *Employer's* portion of the Affected Property concerned, or both.
2. The cover provided and the deductibles under the works policy are different to those under the assets policy. Each policy has a range of applicable deductibles depending on the location of the Affected Property and the nature of the insurable event.
3. The *Contractor* is required in terms of Contract Data for clause 83 to provide cover for the deductibles in the insurance provided by the *Employer*. This can be provided from his own resources on a 'self insured' basis or obtained by him from his own insurers. In order to assess the extent of this cover, tendering contractors and their brokers should consult the internet web link given below and scroll to '**Format TSC3**' to establish both the cover and the deductibles in relation to the service provided in terms of this contract.
4. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 83.2. In terms of clause 83.1 "the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
5. If Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
6. **Further information and full details of all Eskom provided policies and procedures may be obtained from:**

http://www.eskom.co.za/live/content.php?Item_ID=9248

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Annexure B: The *Employer's* Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)
Nigel ANDREWS	Gauteng	+27 11 836-6760 nigela@quoin.net
Andrew BAIRD	Gauteng	+27 11 803 3008 andrewbaird@ecsconsult.co.za
Christopher BINNINGTON	Gauteng	+27 11 888-6141 cdb@bca.co.za
Peter HIGGINS	UK	+44 1293 873 868 peterhiggins@pdconsult.co.uk
Bruce LEECH	Gauteng	+27 11 290 4000 leech@counsel.co.za
Nigel NILEN	Gauteng	+27 11 465 3601; nilences@global.co.za
Peter THURLOW	Gauteng	+27 11 787 6226 info@thurlowassoc.com

Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations management, by contacting Leighton Itholeng (Tel.: +27 (0)11 800 4031) (Fax :+27 (0)86 668 0419) E-mail: Leighton.Itholeng@eskom.co.za

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C1.2 Contract Data

Part two - Data provided by the *Contractor*

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	N/A. N/A.
11.2(14)	The following matters will be included in the Risk Register	Natural disaster
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	Supplier's manual
21.1	The plan identified in the Contract Data is contained in:	Supplier's manual
24.1	The key persons are: 1 Name: Job: Responsibilities:	
A	Priced contract with price list	
11.2(12)	The <i>price list</i> is in	Refer to activity schedule
11.2(19)	The tendered total of the Prices is	Refer to activity schedule

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PART 2: PRICING DATA

TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i>	[•]

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C2.1 Pricing assumptions: Option A

The *conditions of contract*

How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract, June 2005 (TSC3) core clauses and Option A states:

Identified and defined terms	11	
	11.2	(12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.
		(17) The Price for Services Provided to Date is the total of <ul style="list-style-type: none"> the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the <i>Contractor</i> has completed by the rate.
		(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

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

Function of the Price List

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

Link to the *Contractor's* plan

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

Preparing the *price list*

It will be assumed that the tendering contractor has read Pages 14, 15 and 73 of the TSC3 Guidance Notes before preparing the *price list*. Items in the *price list* may have been inserted by the *Employer* and the tendering contractor should insert any additional items which he considers necessary. Whichever party provides the items in the *price list* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

1 As the *Contractor* has an obligation to correct Defects (core clause 42.1) and there is no compensation event for this unless the Defect was due to an *Employer's* risk, the lump sum Prices and

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rates must also include for the correction of Defects.

2 If the *Contractor* has decided not to identify a particular item in the *price list* at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and rates in the *price list* in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.

3 There is no adjustment to lump sum prices in the *price list* if the amount, or quantity, of work within that lump sum item of service later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

4 Hence the Prices and rates tendered by the *Contractor* in the *price list* 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.

5 The Contractor does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an *Employer's* risk event listed in core clause 80.1.

Format of the *price list*

(From page 73 of 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.

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C2.2 the *price list*

NB: Number of quantities remains an estimated quantities. -----

Pricing Structure

ITEM	DESCRIPTION & FUNCTION	Quantity	Rate	Total
1	Universal Counter - Pulse, frequency, time, peak voltage	6	R	R
2	Counter - Pulse	3	R	R
3	Digital Multi-meter - Voltage, Current, Resistance, frequency	3	R	R
4	Data Acquisition Logger - Temperature, Resistance, Humidity & DC Current	3	R	R
5	Data Acquisition Logger - Temperature, Resistance, Humidity & DC Current	6	R	R
6	Glass Thermometer -Temperature	3	R	R
7	Hand held True - RMS Multi-meter - Voltage, Current, Resistance, frequency	3	R	R
8	Hand held True - RMS Multi-meter - Voltage, Current, Resistance, frequency	6	R	R
9	Vernier Calliper - Dimension	9	R	R
10	Measuring Tape - Dimension	3	R	R
11	Measuring Tape - Dimension	6	R	R
12	Retractable Measuring Tape - Dimension	3	R	R
13	Retractable Measuring Tape - Dimension	3	R	R
14	Internal Micrometer - Dimension	3	R	R
15	Transmitter - Differential Pressure	12	R	R
16	Transmitter - Differential Pressure	6	R	R
17	Mass Pieces	180	R	
18	Mass Pieces	12	R	
19	Volume Tank – Water volume	3	R	
20	Volume Tank – Water volume	3	R	
21	Travelling (Collection and Delivery)		R	R

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PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Service Information</i>	
C3.2	<i>Contractor's Service Information</i>	
	Total number of pages	

C3.1: EMPLOYER'S SERVICE INFORMATION

SCOPE OF WORK

ITEM	QTY	DESCRIPTION & FUNCTION	MAKE	MODEL	FREQUENCY
1	2	Universal Counter - Pulse, frequency, time, peak voltage	Agilent	53131A	Yearly
2	1	Counter - Pulse	Instrotech	8001T	Yearly
3	1	Digital Multi-meter - Voltage, Current, Resistance, frequency	Fluke	45 Dual Display	Yearly
4	1	Data Acquisition Logger - Temperature, Resistance, Humidity & DC Current	Fluke	NetDAQ 2640	Yearly
5	2	Data Acquisition Logger - Temperature, Resistance, Humidity & DC Current	Fluke	Series 2 Hydra 2625A	Yearly
6	1	Glass Thermometer -Temperature	Zeal	0 - 50°C Hg/glass	Yearly
7	1	Hand held True - RMS Multi-meter - Voltage, Current, Resistance, frequency	Fluke	175	Yearly
8	2	Hand held True - RMS Multi-meter - Voltage, Current, Resistance, frequency	Fluke	179	Yearly
9	3	Vernier Calliper - Dimension	Mitutoyo	0-150 mm	Yearly
10	1	Measuring Tape - Dimension	Komelon	5m S/Steel KMC-74S	Yearly
11	2	Measuring Tape - Dimension	Komelon	3 m long	Yearly
12	1	Retractable Measuring Tape - Dimension	Stanley	30 m long	Yearly
13	1	Retractable Measuring Tape - Dimension	Hultafors	20 m long	Yearly
14	1	Internal Micrometer - Dimension	Mitutoyo	50-1000 mm	Yearly
15	4	Transmitter - Differential Pressure	Rosemount	3051S - 248 kPa	Yearly
16	2	Transmitter - Differential Pressure	Rosemount	3051S - 62 kPa	Yearly
17	60	Mass Pieces	WIS	20 kg	Once-off
18	4	Mass Pieces	WIS	1000 kg	Once-off
19	1	Volume Tank – Water volume	Schnaier Engineering	200L SA540	Once-off
20	1	Volume Tank – Water volume	Schnaier Engineering	5000L SA540	Once-off
21	1	Collection & Delivery	Home - Flow Lab - Calibration Lab - Home		

Scope of work / supply

- Instruments **MUST** be **collected** from Eskom Flow Laboratory every year as required.
- Inspect instruments and advice if still in good condition.
- Measuring instruments **MUST** be calibrated at a SANAS accredited facility.

The provision for the calibration of flow laboratory measuring instrument for a period of 3 years as an when required basis

- All measuring instruments to be calibrated according to the specification and requirements as specified in section 6 below (Specification of product or goods) and/or OEM.
- All measuring instruments **MUST** be returned to the Eskom Flow Laboratory after calibrations.

Specification of goods / products

Item No:

1. Universal Counter, Manufacture: Agilent, Model: 53131A

Time Base: 10 MHz
Temperature stability: $< 5 \times 10^{-6}$, 0° to 50 °C
Aging Rate: $< 3 \times 10^{-7}$ / month.
Display: 12 digits

<u>Time Interval</u>	<u>Frequency</u>
Range: 1 ns to 105 seconds	0.1 Hz - 225 MHz, sampling 4.4ns to 10s
Accuracy: < 0.0001 sec (See manual)	< 0.01 Hz (See manual)
Resolution: 500 ps	10 digits/s

Time Interval accuracy: ± 0.005 % (± 3 ms in 60 s).
Frequency accuracy (Totalise): ± 0.02 % (± 2 counts in 10 000).
Frequency accuracy (Rate): ± 0.01 Hz to ± 0.1 Hz typical.

2. Pulse Counter, Manufacture: Instrotech, Model: 8001T

Accuracy 0.05% of FS, or 1 count
Internal resolution 20000 counts (bi-polar)
Temp coeff 20 ppm/°C typical
Operating temp range -10 to + 50°C
Humidity $< 85\%$ non-condensing
Warm-up time None required
Display: 5 1/2 digit for rate and 8 digit count
Range: 0, 2 Hz - 40 kHz (24V max, up to 0.01 Hz resolution)

3. Fluke 45 Digital DMM, Manufacture: Fluke, Model No: 45 Dual display

DC Current
Measuring range: 30 mA (0 - 22 mA), Slow rate, Auto resolution.
Accuracy: $\pm (0.05\% + 0.003 \text{ mA})$
at 4 mA, accuracy = ± 0.125 %
at 12 mA, accuracy = $\pm 0.075\%$
at 18 mA, accuracy = $\pm 0.067\%$

4. Fluke NetDAQ Logger, Manufacture: Fluke, Model No: NetDAQ 2640

DC Voltage Accuracy with Isothermal Input connector

Range: Accuracy: 1 Year, 18 - 28 °C at 3 sigma	Resolution
$\pm 3 \text{ V}$ $\pm 0.013\%$ omv + 0.15 mV	10 μV

The provision for the calibration of flow laboratory measuring instrument for a period of 3 years as an when required basis

For current measurement, the data logger is configured to measure the volt-drop across

high precision 100 ohm resistors. Each channel is configured to the 3V range with its own resistors. The corresponding voltage and specification accuracy is as follows:

Input	Voltage	V (0.013%)	V (0.15 mV)	V	Spec	Acc % @3 sigma
4 mA	0.4 V	0.000052	0.00015	0.000202	0.05	0.3998
8mA	0.8 V	0.000104	0.00015	0.000254	0.03	
12 mA	1.2 V	0.000156	0.00015	0.000306	0.03	
16 mA	1.6 V	0.000208	0.00015	0.000358	0.02	
20 mA	2.0 V	0.00026	0.00015	0.00041	0.02	2.001
	1.6012					

16 mA Span Error % 0.075

An overall accuracy of better than ± 0.5 for all 7 PT100 Temperature Channels.

5. Fluke Hydra Loggers, Manufacture: Fluke, Model No: Hydra 2625A

Measurement mode options: Active, Configuration and Inactive mode

Measurement Functions: DC Voltage: AC Voltage: Temperature using RTD'S

Frequency: Resistance.

Accuracy: On the 3 VDC range = $\pm 0.089\%$ + 2 mV

On the 300 VAC range = $\pm 1.31\%$ + 0.3 V

On the RTD range = $\pm 1.0^\circ\text{C}$ after calibration (Ohm age value corrected)

Measurement speed: Slow rate = 4 readings per second

Fast rate = 17 readings per second

Power supply: 220 VAC

Operating temperature: 0°C to 60°C

Ranges from 0/4 - 20 mA on Channels 1 - 2 with Accuracy of $\pm 0.1\%$

Temperature range configured 4-wire (4T) connections from $0 - 50^\circ\text{C}$ with Accuracy of $\pm 0.5^\circ\text{C}$

Ch 9 water temperature with an accuracy of $\pm 0.5^\circ\text{C}$

Ch10 ambient temperature with an accuracy of $\pm 1.0^\circ\text{C}$

Calibration uncertainty for current must be within $\pm 0.1\%$

Calibration uncertainty for Ch9 must be within $\pm 0.25^\circ\text{C}$

Calibration uncertainty for Ch10 must be within $\pm 0.5^\circ\text{C}$

6. Glass Thermometer –Temperature, Manufacture: Zeal, Model No: 0 - 50°C Hg/glass

Semi - controlled laboratory, ambient conditions $20^\circ\text{C} \pm 5^\circ\text{C}$

Measuring range: $0^\circ\text{C} - 50^\circ\text{C}$

Overall Accuracy: $\pm 0.3^\circ\text{C}$

7. Hand held Multimeters, Manufacture: Fluke, Model No: 175

DC Current

Measuring range: 60 mA with 0.01 mA resolution

Accuracy: At 50 mA input, Tolerance = $49.22\text{ mA} \pm 0.8\text{ mA} \pm 0.01\text{ mA}$

Power supply: 9 VDC Battery

Operating temperature: 5°C to 40°C

Accuracy to be better than Better than $\pm 0.5\%$

The provision for the calibration of flow laboratory measuring instrument for a period of 3 years as an when required basis

8. Hand held Multimeters, Manufacture: Fluke, Model No: 179

DC Current

Measuring range: 60 mA with 0.01 mA resolution

Accuracy: At 50 mA input, Tolerance = $49.22 \text{ mA} \pm 0.8 \text{ mA} \pm 0.01 \text{ mA}$

Power supply: 9 VDC Battery

Operating temperature: 5 °C to 40 °C

Accuracy to be better than Better than $\pm 0.5\%$

9. Vernier Caliper, Manufacture: Mitutoyo, Model No: 0 – 150 mm

Measurements done in mm.

Measuring range: 0 - 150 mm with 0.02 mm resolution

Operating temperature: 5 °C to 40 °C

The calibration uncertainty must be within $\pm 0.05 \text{ mm}$

10. Tape Measure 5 meters long

Measurements done in mm.

Measuring range: 0 - 5000 mm with 1.0 mm resolution

Accuracy: $\pm 0.5 \text{ mm}$

Operating temperature: 5 °C to 40 °C

Stainless steel tape, Nylon coated.

11. Tape Measure 3 meters long

Measurements done in mm.

Measuring range: 0 - 3000 mm with 1.0 mm resolution

Accuracy: At 1000 mm = 0.50 mm worst case

Sensor spacing measures from 60 - 1500 mm.

Accuracy Better than $\pm 0.5\%$

12. Tape Measure 30 meters long, Retractable.

Measurements done in mm.

Measuring range: 0 - 30000 mm with 1.0 mm resolution

Accuracy: At 5000 mm = 1.0 mm worst case

Better than $\pm 0.5\%$

Operating temperature: 5 °C to 40 °C

13. Tape Measure 20 meters long, Retractable

Measurements done in mm.

Measuring range: 0 - 20000 mm with 1.0 mm resolution

Accuracy: At 1000 mm = 0.50 mm worst case

Better than $\pm 0.5\%$

Operating temperature: 5 °C to 40 °C

14. 50-1000 mm Micrometer, Manufacture: Mitutoyo

Measuring range: 50 - 1000 mm

Typical Accuracy: 0.01 mm

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15. Differential pressure transducer, Manufacturer: Rosemount, Model No: 3051S – 248 kPa

Lower Range Limit = 0 kPa
Upper Range Limit = +248 kPa
Minimum Span = 20 kPa

Performance:
Conformance to ± 2 sigma.
From 31 - 248 kPa DP: $\pm 0.05\%$ of reading
From 10 - 30 kPa DP: $\pm 0.1\%$ of reading

Calibration Procedure:
Perform Zero trim
Lower Range Limit set to 0 kPa and upper range limit set to 248 kPa
Certify over range 10 kPa to 248 kPa

16. Differential pressure transducer, Manufacturer: Rosemount, Model No: 3051S – 62 kPa

Lower Range Limit = 0 kPa
Upper Range Limit = +62 kPa
Minimum DP = 4 kPa to 15 kPa

Performance:
Conformance to ± 2 sigma.
From 15 - 62 kPa DP: $\pm 0.05\%$ of reading
From 4 - 15 kPa DP: $\pm 0.1\%$ of reading

Calibration Procedure:
Perform Zero trim
Lower Range Limit set to 0 kPa and upper range limit set to 62.16 kPa
Certify over range 10 kPa to 62 kPa
Technical Evaluation Criteria

17. 20 kg Mass-pieces

An overall accuracy of $\pm 0.01\%$ for the weights is desirable.

18. 1000 kg Mass-pieces

An overall accuracy of $\pm 0.01\%$ for the weights is desirable.

19. 200L Volume Tank – Water

Nominal Volume: 200 L
Lower level volume: 199 L (Nominal)
Upper Level volume: 201.5 L (Nominal)
Scale divisions: 0.5 L
Level volume display resolution: 0.001 L (1 ml)
Level area resolution: 0.028 % per cm (~ 56 ml /cm)
Flow range: 3 - 180 L/min
Minimum filling time: 66.7 sec
Maximum filling time: 4000 sec

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Overall System Accuracy: $\pm 0.1\%$ of rate from 4 l/min - 3.0 L/s Calibrated In-situ.

20. 500L Volume Tank – Water

Nominal Volume : 5000 L

Lower level volume : 4979 L (Nominal)

Upper Level volume : 5019 L (Nominal)

Scale divisions : 8 L

Level volume display resolution : 0.01 L (10 ml)

Level area resolution : 0.02 % per cm (~ 1L/cm)

Flow range : 3 - 45 L/s

Minimum filling time : 111 sec

Maximum filling time : 1667 sec (28 minutes)

Overall System Accuracy: $\pm 0.1\%$ of rate from 3 l/s - 45.0 l/s Calibrated In-situ

21. Collect & Delivery to address below:

Flow Laboratory, Eskom Research Testing & Development
Lower Germiston Road, Rosherville, Johannesburg, 2094

Description of the service

Invoicing and payment

Clause 50.2 states invoices submitted by the *Contractor* include the details stated in the Scope to show how the amount due has been assessed. Also state what must be shown on the Invoice. The following text is suggested.

The following details shall be shown on or attached to each Invoice to show how the amount due has been assessed:

The *Contractor* shall address the tax invoice to Eskom Research and Innovation centre and include on it the following information:

Name and address of the *Contractor* and the *Employer's Agent*;

The contract number and title;

Contractor's VAT registration number;

The *Employer's* VAT registration number 4740101508;

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

Health and safety

The *Contractor* shall at all times comply with the health and safety requirements prescribed by law as they may apply to the *services*.

- Letter of Good Standing
- Acknowledgment of Life Saving Rules
- Signed SHE Policy
- 37(2) Eskom Agreement
- Baseline Risk Assessment

The provision for the calibration of flow laboratory measuring instrument for a period of 3 years as an when required basis

Eskom's cardinal rules

The Eskom Cardinal Rules are non-negotiable safety rules that aim to prevent serious at-risk behaviours and promoting a safe working environment at all locations. There may be instances where divisions and or business units have additional cardinal rules addressing their specific risks and these will be supplementary to the five Eskom Cardinal Rules.

The five Eskom Cardinal Rules that the service provider must adhere to, and are as follows:

- Rule 1: "Open, isolate, test, earth, bond and/or insulate before touch"
- Rule 2: "Hook up at height"
- Rule 3: "Buckle Up"
- Rule 4: "Be Sober"
- Rule 5: "Ensure that you have a permit to work"

All safety rules and requirements are important and must be adhered to. The Eskom Cardinal Rules are different from regular safety rules in that they are considered higher order rules. If any of the Eskom Cardinal Rules are not adhered to, it will result in a disciplinary process in accordance with the Eskom Disciplinary Code and Procedure, which will have the power of dismissal