NEC3 Term Service Contract (TSC3)

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

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

for **Design, Supply, Installation, Integration, Validation, and Commissioning of a Robotics-Enabled Automated Work Cell at the Rotek Transformer Oil Laboratory.**

Contents:		No of pages
Part C1	Agreements & Contract Data	[●]
Part C2	Pricing Data	[●]
Part C3	Scope of Work	[●]

CONTRACT No.

VENDOR No.

PART C1: AGREEMENTS & CONTRACT DATA

Contents:		No of pages
C1.1	Form of Offer and Acceptance	[●]
	[to be inserted from Returnable Documents at award stage]	
C1.2a	Contract Data provided by the *Employer*	[●]
C1.2b	Contract Data provided by the *Contractor*	[●]
	[to be inserted from Returnable Documents at award stage]	
C1.3	Proforma Guarantees	[●]

C1.1 Form of Offer & Acceptance

Offer

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

Title of the Contract

Design, Supply, Installation, Integration, Validation, and Commissioning of a Robotics-Enabled Automated Work Cell at the Rotek Transformer Oil Laboratory.

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

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

Options A	The offered total of the Prices exclusive of VAT is	**R [●]**
	Sub total	**R [●]**
	Value Added Tax @ 15% is	**R [●]**
	The offered total of the amount due inclusive of VAT is[1]	**R [●]**
	(in words) **[●]**	

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

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness .....

Date .....

Tenderer's CIDB registration number: .....

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

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Service Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)			
Name(s)			
Capacity			
for the Employer			
	(Insert name and address of organisation)		
Name & signature of witness		Date	

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

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

Note:

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

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

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

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

	For the tenderer:	**For the Employer**
Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data	
1	**General**		
	The *conditions of contract* 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**
		X12:	**The Partnering Option**
		X17:	**Low service damages**
		X18:	**Limitation of liability**
		X19:	**Task Order**
		Z:	***Additional conditions of contract***
	of the NEC3 Term Service Contract April 2013[2] (TSC3)		
10.1	The *Employer* is (name):	**Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa**	
	Address	**Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg**	
	Tel No.	**[●]**	
	Fax No.	**[●]**	
10.1	The *Service Manager* is (name):	**[●]**	
	Address	**[●]**	
	Tel	**[●]**	
	Fax	**[●]**	
	e-mail	**[●]**	
11.2(2)	The Affected Property is	**Eskom Rotek Industries, Rotek Oil Lab, 1 Lower Germiston Road, Rosherville**	

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

11.2(13)	The *service* is	**Design, supply, install, integrate, validate and commission a fully integrated, robotics-enabled automated work cell at Eskom's Rotek Transformer Oil Laboratory, comprising:** **(a) automation of eight (8) transformer oil tests, being Dissolved Gas Analysis, Moisture Content (Karl Fischer), Acidity (Neutralisation Number), Dielectric Strength (BDV), Colour (ASTM D1500), Interfacial Tension, Furanic Analysis and Tan Delta (Dissipation Factor);** **(b) secure bi-directional integration with Sample Manager 21.2 LIMS through a validated middleware layer;** **(c) detailed laboratory layout design and all associated infrastructure interfaces;** **(d) supply of all analytical instruments, robotics, control systems, safety systems and IT/OT infrastructure;** **(e) laboratory infrastructure upgrades, including benches, cabinets, extraction, electrical, fire detection, gas detection and HVAC;** **(f) a Visual Demonstration and 3D Training Simulation Suite;** **(g) conversion of the ERIC Block B ground-floor meeting room into a training room;** **(h) IT/OT cybersecurity readiness and compliance;** **(i) FAT, SAT, IQ/OQ/PQ validation, training, change management, commissioning, documentation handover, warranty and four (4) weeks on-site hypercare support;** **all as more fully described in Part 3: Scope of Work (Service Information), including the Rotek Oil Lab Automation Technical Specification incorporated therein.**
11.2(14)	The following matters will be included in the Risk Register	**1. LIMS, middleware, instrument integration, IT/OT approvals and cybersecurity approvals.** **2. Equipment supply, import logistics, commissioning, validation and operational transition risks.** **3. Control-system performance, data integrity, SHEQ safety interlocks and laboratory risk-assessment dependencies.**

		4. **Schedule, performance, integration readiness, safety and acceptance risks requiring escalation.** 5. **Scope, specification, schedule, deliverable, interface and acceptance-criteria changes subject to formal Eskom approval.** 6. **Cybersecurity, remote-access, patching, backup, service-account and production deployment-control dependencies.** 7. **Laboratory access, site safety, extraction or ventilation interfaces, emergency-access routes and training-room conversion dependencies.** 8. **Defect correction, warranty and four-week on-site hypercare support after go-live.** 9. **Instrument vendor delays, calibration delays and certified reference material availability.** 10. **LIMS vendor, DataPower/DMZ and Eskom Group IT dependency delays.** 11. **Barcode/RFID standard, label specification and scanner compatibility risks.** 12. **Hazardous-area classification, hydrogen gas detection and solvent handling risks.** 13. **Power quality, UPS, generator changeover and electrical compliance risks.** 14. **Fire detection, escape route and emergency lighting approval risks.** 15. **Any additional Eskom project-specific risks to be confirmed before contract award.**
11.2(15)	The Service Information is in	**Part 3: Scope of Work, comprising:** • **C3.1 Cover page** • **C3.2 Employer's Service Information** • **C3.3 Contractor's Service Information** • **C3.4 Rotek Oil Lab Automation Technical Specification (incorporated by reference and forming part of the Service Information)** **and all documents and drawings to which it makes reference.**

12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**1 weeks**
2	**The *Contractor*'s main responsibilities**	**Data required by this section of the core clauses is also provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data**
21.1	The *Contractor* submits a first plan for acceptance within	**2 weeks of the Contract Date**
3	**Time**	
30.1	The *starting date* is.	**To be confirmed**
30.1	The *service period* is	**24 Months**
4	**Testing and defects**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data**
5	**Payment**	
50.1	The *assessment interval* is	**between the 25th day of each successive month.**
51.1	The *currency of this contract* is the	**South African Rand**
51.2	The period within which payments are made is	**4 weeks.**
51.4	The *interest rate* is	**the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and** **(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.**

6	**Compensation events**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data**
7	**Use of Equipment Plant and Materials**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data**
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**1. As per the 80.1 clause**
9	**Termination**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
10	**Data for main Option clause**	
A	**Priced contract with price list**	
20.5	The *Contractor* prepares forecasts of the final total of the Prices for the whole of the *service* at intervals no longer than	**2 weeks.**
11	**Data for Option W1**	
W1.1	The *Adjudicator*	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).**
	Address	**[•]**
	Tel No.	**[•]**
	Fax No.	**[•]**
	e-mail	**[•]**
W1.2(3)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body.**
W1.4(2)	The *tribunal* is:	**arbitration**
W1.4(5)	The *arbitration procedure* 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 - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

12 Data for secondary Option clauses

X1 Price adjustment for inflation

X1.1 The *base date* for indices is **[●].**

The proportions used to calculate the Price Adjustment Factor are:

	proportion	**linked to index for**	**Index prepared by**
	0.	**[●]**	**[●]**
	0.	**[●]**	**[●]**
	0.	**[●]**	**[●]**
	0.	**[●]**	**[●]**
	0.	**[●]**	**[●]**
	[●]	**non-adjustable**	
	1.00		

X2 Changes in the law — **There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.**

X12.1(1)	The *Client* is (Name):	**[●]**
	Address	**[●]**
	Contact details	**[●]**
	Telephone:	**[●]**
	Fax	**[●]**
	e-mail	**[●]**

X17 Low service damages

X17.1 The *service level table* is in **[●]**

Item	**Description**	**Penalty**
	Substantial Failure to comply with the installation Schedule	**Deduct 1% rand value of the activity task per day**

X18 Limitation of liability

X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to	**R0.0 (zero Rand)**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to	**the amount of the deductibles relevant to the event**
X18.3	The *Contractor*'s liability for Defects due to his design of an item of Equipment is limited to	**The greater of** • **the total of the Prices at the Contract Date and** • **the amounts excluded and unrecoverable from the *Employer*'s insurance (other than the resulting physical damage to the *Employer*'s property which is not excluded) plus the applicable deductibles**
X18.4	The *Contractor*'s total liability to the *Employer*, for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	**the total of the Prices other than for the additional excluded matters.** **The *Contractor's* total liability for the additional excluded matters is not limited.** **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for** • **Defects due to his design, plan and specification,** • **Defects due to manufacture and fabrication outside the Affected Property,** • **loss of or damage to property (other than the *Employer*'s property, Plant and Materials),** • **death of or injury to a person and** • **infringement of an intellectual property right.**
X18.5	The *end of liability date* is	**24 months after the end of the *service period*.**
X19	**Task Order**	
X19.5	The *Contractor* submits a Task Order programme to the *Service Manager* within	**7 days of receiving the Task Order**
Z	**The *additional conditions of contract* are**	**Z1 to Z14 always apply.**

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

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

Z3	**Change of Broad Based Black Economic Empowerment (B-BBEE) status**
Z3.1	Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor*'s B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
Z3.2	The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.
Z3.3	Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Service.
Z3.4	Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

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

Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:

- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Affected Property;
- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of the *service*; and
- undertakes, in and about the execution of the *service*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

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

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

Z7.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.

Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

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

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

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

Z10	**Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":**
Z10.1	or had a business rescue order granted against it.

Z11	**Ethics**
For the purposes of this Z-clause, the following definitions apply:	
Affected Party	means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,
Coercive Action	means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
Collusive Action	means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
Committing Party	means, as the context requires, the *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,
Corrupt Action	means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
Fraudulent Action	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
Obstructive Action	means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
Prohibited Action	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.
Z11.1	A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
Z11.2	The *Employer* may terminate the *Contractor*'s obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor*'s obligation to Provide the Services for this reason.

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

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

Z12 Insurance

Z_12_.1 Replace core clause 83 with the following:

Insurance cover 83

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

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

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the *Contractor* to the *Employer*'s property	The replacement cost where not covered by the *Employer*'s insurance. The *Employer*'s policy deductible as at Contract Date, where covered by the *Employer*'s insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the *Employer*'s insurance. The *Employer*'s policy deductible as at Contract Date, where covered by the *Employer*'s insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the *Employer*'s insurance. The *Employer*'s policy deductible as at Contract Date, where covered by the *Employer*'s insurance.
The *Contractor*'s liability for loss of or damage to property (except the *Employer*'s property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor*'s Providing the Service	Loss of or damage to property The replacement cost Bodily injury to or death of a person The amount required by the applicable law.
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in	The amount required by the applicable law

the course of their employment in connection with this contract	

Z 12.2 Replace core clause 86 with the following:

Insurance by the *Employer*

86

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

INSURANCE TABLE B

Insurance against or name of policy	**Minimum amount of cover or minimum lir of indemnity**
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that

person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

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

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the *Employer*'s 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.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

[Instructions to the contract compiler: (delete this notes before issue to tenderers with an enquiry) Whenever a cell is shaded in the left hand column it denotes this data is optional and would be required in relation to the option selected. In the event that the option is not required select and delete the whole row.]

Notes to a tendering contractor:

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

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

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

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

11.2(19)	The tendered total of the Prices is	**R**

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The *price list*	**[●]**

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

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

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

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

Function of the Price List

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

Link to the *Contractor*’s plan

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

Preparing the *price list*

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

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

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

Format of the *price list*

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

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

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

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

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

C2.2 the *price list*

Part 1: Fixed-Price Scope (Core Work)
The rates and prices entered for each item shall include all work, materials, services, obligations, and other requirements necessary to complete the item in accordance with the Service Information.

Item nr	Description	Unit	Expected Quantity	Rate	Price
1.1	**Design, supply, installation, integration, validation, and commissioning of a fully integrated, robotics-enabled automated work cell for eight (8) transformer oil tests** (Dissolved Gas Analysis, Moisture Content, Acidity, Dielectric Strength, Colour, Interfacial Tension, Furanic Analysis, and Tan Delta), as defined in the Service Information.			**[●]**	**[●]**
1.2	**Visual demonstration and 3D training simulation suite**, including a 65-inch 4K display, interactive touchscreen kiosk, 3D-rendered animation (MP4/AVI 4K), SCORM-compliant training module, installation and user manuals, and a minimum of two training workstations.			**[●]**	**[●]**
1.3	**Conversion of the ERIC Block B ground-floor meeting room** to a new training room in compliance with the Eskom Workplace Space and Furniture Standard (240-52599753) and Universal Access Specifications (240-157602340).			**[●]**	**[●]**
1.4	**All mandatory documentation**, including as-built drawings, bills of materials, operating procedures, maintenance instructions, validation records (IQ/OQ/PQ), training records, backup and restore procedures, configuration records, agreed source materials, and the final data book.			**[●]**	**[●]**
1.5	**Project management, integration management, risk and dependency management, and change control**, including all ancillary work required for successful end-to-end delivery of the project.			**[●]**	**[●]**

Part 2: Task Order Work (Additional Services)
The rates and prices entered for each item shall include all work, materials, services, obligations, and other requirements necessary to complete the item. Part 2 applies to work carried out on a task-by-task basis when instructed by Task Order under Option X19. These rates apply to additional services outside the fixed-price scope.

Item nr	Description	Unit	Expected Quantity	Rate	Price
2.1	**C&I/automation engineering services** for work outside the fixed-price scope, including extra testing, new instruments, and significant design changes not covered under Part 1.	Hour	**[●]**	**[●]**	**[●]**
2.2	**Software development services** for work outside the fixed-price scope, including middleware development, LIMS integration, custom scripts, and configuration changes beyond the fixed scope.	Hour	**[●]**	**[●]**	**[●]**
2.3	**Project management services** for work outside the fixed-price scope, including additional management resources for complex changes or variations.	Hour	**[●]**	**[●]**	**[●]**

The total of the Prices	

PART 3: SCOPE OF WORK

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

C3.1: EMPLOYER'S SERVICE INFORMATION

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1.2 Employer's Objectives and Purpose of the Works 3
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1 Description of the *service*

1.1 Executive Overview

The Contractor shall design, supply, install, integrate, validate and commission a fully integrated, robotics-enabled automated work cell at Eskom's Rotek Transformer Oil Laboratory.

The pilot project shall automate eight (8) key transformer oil tests, integrate seamlessly with the existing Sample Manager 21.2 LIMS, and establish a validated reference model for broader enterprise deployment. The solution shall deliver measurable improvements in turnaround time, throughput, data integrity, safety and total cost of ownership.

The scope is a single turnkey delivery where the Contractor is the design authority and is accountable for end-to-end performance, including detailed laboratory layout design, supply of all hardware and software, systems integration, infrastructure upgrades, validation, training, change management and operational transition.

The following eight (8) transformer oil tests shall be automated:

Table 1: Automated Tests and Workflow

Test Name	Automation Requirement
Dissolved Gas Analysis (DGA)	Automated sample injection, analysis, and data capture
Moisture Content (Karl Fischer)	Automated sample metering, titration, and result logging
Acidity (Neutralisation Number)	Automated reagent addition, mixing, titration, and cleaning
Dielectric Strength (BDV)	Automated sample filling, voltage application, and reporting
Colour (ASTM)	Automated sample presentation to spectrophotometer
Interfacial Tension (IFT)	Automated ring or plate handling and measurement
Furanic Analysis	Automated sample injection, analysis, and data capture
Tan Delta (Dissipation Factor)	Automated sample cell filling and measurement

1.2 Employer's Objectives and Purpose of the Works

Eskom's Petroleum Sciences Laboratories currently rely on manual and partially automated workflows that constrain throughput, increase data integrity risk, and heighten operator variability. The Rotek Transformer Oil Laboratory has been selected as the pilot site to de-risk future implementation at scale.

This Scope of Work defines the end-to-end delivery requirements for the automated work cell, including hardware, software, systems integration, infrastructure upgrades, validation, training, change management, and operational transition.
The Employer's objectives are to:

1. Achieve measurable improvements in turnaround time, throughput, data integrity, safety, and total cost of ownership
2. Automate eight key transformer oil tests to eliminate manual transcription errors
3. Integrate seamlessly with the existing Sample Manager 21.2 LIMS
4. Establish a validated reference model for broader enterprise deployment
5. Achieve the quantified performance targets defined in the Key Performance Indicators below

1.3 Quantified Performance Targets (Key Performance Indicators)

The Contractor's solution shall demonstrably achieve the following minimum performance improvements against the baseline established in the As-Is process mapping. Performance shall be measured during implementation, validation, and site acceptance to confirm that the automated work cell delivers the required operational, quality, and traceability benefits.

Table 2: Quantified Performance Targets (Key Performance Indicators)

Metric	Baseline (As-Is)	Target (To-Be)	Measurement Method
Turnaround Time (TAT) – Routine	16 days average	≤ 3 days from sample receipt to report approval	LIMS audit timestamps
Turnaround Time (TAT) – Urgent	24 hours	≤ 8 hours	LIMS audit timestamps
Turnaround Time (TAT) – Emergency	Same shift	≤ 2 hours	LIMS audit timestamps
Throughput	9,690 samples/year	≥ 15,000 samples/year using the same headcount	LIMS sample count per annum
Data Entry Transcription Errors	Baseline error rate	Zero (0) routine manual keying	LIMS audit log and SAT test
Operator Hands-On Time per Sample	Baseline to be measured jointly	≥ 70% reduction	Time-motion study during SAT
Sample Tracking	No digital location visibility	100% barcode-tracked from receipt to disposal	System traceability report

1.4 Scope of the Works

The Contractor shall provide the following scope as a single turnkey provider and remain accountable for end-to-end delivery, including detailed laboratory layout design, supply, installation, integration, performance, compliance, cybersecurity readiness, SHEQ/Facilities approval support, validation, documentation and acceptance. The scope covers the complete analytical value chain from barcode-based sample receipt through automated preparation, testing, result capture, LIMS submission, reporting, storage and disposal.

The full technical requirements are set out in **Annexure A: Rotek Oil Lab Automation Technical Specification**, which is incorporated by reference and forms part of this Service Information. Annexure A includes, but is not limited to:

- Automated tests and workflow (Section 3.3.3.1 of Annexure A)
- Sample registration and barcode-driven workflow
- Robotics and sample handling
- Automated sample conditioning and homogenisation
- Instrument-to-LIMS data flow
- Integration architecture and IT/OT engagement
- LIMS integration
- Laboratory layout design and facilities approval
- Laboratory infrastructure upgrades
- Visual demonstration and 3D training simulation suite
- IT/OT infrastructure
- Change management and training
- Validation and acceptance testing
- Mandatory technical performance criteria
- Instrument list and specifications
- Robotics criteria
- C&I scope (Section 3.4 of Annexure A)
- IT/OT scope (Section 3.5 of Annexure A)

- Building upgrade (Section 3.6 of Annexure A)
- Scope exclusions and boundaries
- Deliverables
- Acceptance criteria
- Commercial and contractual conditions
- Compliance requirements
- Assumptions, exclusions and deviations
- Risk and dependency management
- Change control
- Defects, warranty and performance liability
- Construction
- Completion, testing, commissioning and correction of defects
- Plant and materials standards and workmanship
- Specifications for the works

Where there is any conflict between this Part 3 and Annexure A, **Annexure A shall prevail for technical matters**, and **this Part 3 shall prevail for contractual matters**.

1.5 Existing System

The Oil Lab is located at the Rotek facility. The existing Sample Manager 21.2 LIMS is the target integration platform for the automated work cell.

1.6 Interpretation and terminology

.
The following abbreviations and definitions apply to this Service Information and are to be read together with the contract documents. Where a term is defined in the conditions of contract, that contractual meaning takes precedence unless this Service Information requires a more specific technical interpretation.

The following abbreviations are used in this Scope Document.

Abbreviation	Meaning
AFC	Approved for Construction
C&I	Control and Instrumentation
CQP	Contract Quality Plan
CRM	Certified Reference Material
CSV	Comma-Separated Values
DGA	Dissolved Gas Analysis
DMZ	Demilitarised Zone
ECM	Engineering Change Management
FAT	Factory Acceptance Testing
FDS	Functional Design Specification
GPRS	General Packet Radio Service
HMI	Human-Machine Interface
HPLC	High Performance Liquid Chromatography
HTTPS	Hypertext Transfer Protocol Secure
IEC	International Electrotechnical Commission
IFT	Interfacial Tension
IQC	Internal Quality Control
IQ/OQ/PQ	Installation Qualification / Operational Qualification / Performance Qualification
ISO	International Organisation for Standardisation
ITP	Inspection and Test Plan
LIMS	Laboratory Information Management System
MDR	Multi-disciplinary Review
MFA	Multi-Factor Authentication
MTBF	Mean Time Between Failures
NEC	New Engineering Contract
NCR	Non-Conformance Report
OBL	Outside Battery Limits
OEM	Original Equipment Manufacturer
OPC	Open Platform Communications
OT	Operational Technology
PLC	Programmable Logic Controller
QCP	Quality Control Plan
RAC	Registered Asbestos Contractor
RFID	Radio Frequency Identification

Abbreviation	Meaning
RSD	Relative Standard Deviation
SANAS	South African National Accreditation System
SANS	South African National Standards
SAT	Site Acceptance Testing

2 Management strategy and start up.

2.1 The *Contractor*'s plan for the *service*

The Contractor shall provide a comprehensive scope execution plan which complies with the requirements of this Service Information.

The Contractor's plan shall be submitted for acceptance within two (2) weeks of the Contract Date in accordance with core clause 21.1. The plan shall be a single integrated programme that incorporates all the work to be performed, including that of his Subcontractors. The interfaces between Subcontractors as well as the interfaces between Subcontractors and the Contractor shall be clearly identified.

The Contractor's plan shall take into consideration and address the following requirements:

Table 1: Contractor's Plan Components

No.	Component	Description
2.1.1	Site Inspections	Conduct physical inspections of the Employer's selected sites (Rotek Oil Lab facility) to inform the Contractor of the site-specific requirements for the design of the automated work cell.
2.1.2	Location Determination	Determine the appropriate location at the selected sites for the installation of the automated work cell to ensure effective measuring, monitoring, and operational efficiency.
2.1.3	System Design	Design an automated work cell with the requirements specified in Section 2.1.3 below.
2.1.4	Design Review	Design review requirements and approval of the final design as per Eskom Design Review Procedure (240-53113685).
2.1.5	Documentation	Submit installation, commissioning, operating and maintenance manuals and procedures for the automated work cell.
2.1.6	Factory Acceptance Testing	Facilitate acceptance testing of the automated work cell prototype at the Contractor's premises.
2.1.7	Training Proposal (Practical)	Submit a training proposal for practical training to be approved by the Employer.
2.1.8	Supply of Equipment	Supply four (4) automated work cell systems complete with all accessories and material required, as per the approved design.
2.1.9	Quality Documentation	Provide the quality control plan and inspection test plan for all activities of this scope.
2.1.10	Installation and Commissioning	Install and commission the automated work cell systems at the Employer's selected sites.
2.1.11	Practical Training	Provide practical training to the Employer as part of the installation and commissioning works.
2.1.12	Training Proposal (Theoretical)	Submit a training proposal for theoretical training to be approved by the Employer.
2.1.13	Theoretical Training	Provide theoretical training to the Employer once commissioning of all sites has been completed.
2.1.14	Technical Support	Provide technical support to the Employer on an as-and-when required basis.
2.1.15	Knowledge Transfer	Participate in knowledge transfer workshops on request from the Employer, on an as-and-when required basis.

2.1.2 Site Inspections

The Contractor shall conduct physical inspections of the Employer's selected sites provided in this Service Information. This will inform the Contractor of the site-specific requirements for the design of the automated work cell.

The site inspections shall include, but not be limited to:

- Verification of available space and layout constraints
- Identification of existing services and utilities
- Assessment of environmental conditions
- Verification of access routes and logistics requirements
- Identification of SHEQ hazards and risks

2.1.2 Location Determination

The Contractor shall determine the appropriate location at the selected sites for the installation of the automated work cell to ensure effective measuring and monitoring.

2.1.3 System Design Requirements

The Contractor shall design an automated work cell with the following requirements:

2.1.3.3 Web-Based Data Acquisition System

The Contractor shall integrate the GIC and magnetic field data into a web-based data acquisition system that can be accessed on-site and remotely, with the following specific requirements:

Requirement	Description
Interface	Hypertext transfer protocol secure (HTTPS) enabled web-based interface to navigate, view, download and interrogate the data using Microsoft Excel or comma-separated values (CSV) file formats without any encryptions.
Browser Support	Support common web browsers (Microsoft Edge, Mozilla Firefox, Google Chrome, Safari) on a personal computer or mobile device (cell phone, tablet, etc.).
SMS Notifications	Direct SMS notifications from the system shall always be available and operational to multiple end users. Notifications must include the GIC level in Amperes per monitored transformer. The Employer (multiple end users) must be able to specify and enter the limits of the GIC level in Amperes in the system.
Manual Download	Capability to manually download data from the system via a universal serial bus (USB) port, using Microsoft Excel or CSV file formats without any encryptions.
Data Storage	Minimum data storage period (data availability for download) of 2 years.
Data Display	Data display as data points, graphs or any user-friendly method, allowing data interrogation on both the web-based interface and exported data files.

2.1.3.4 Communication Medium

The automated work cell communication medium shall be general packet radio service (GPRS) or any latest mobile communication technology.

2.1.3.5 Enclosure and Protection

The automated work cell shall be enclosed to protect its functionality and operation against environmental elements. An ingress protection (IP) rating of 56 will be accepted, as a minimum.

2.1.3.6 Seismic Requirements

The automated work cell design shall be able to withstand seismic conditions at a minimum of 0.3g.

2.1.3.7 Expected Life Span

The expected life span of the automated work cell shall be at least 15 years.

2.1.3.8 Completeness

All components and accessories required for the successful operation of work under the scope of this project, either specified in detail or not, shall be supplied, installed and commissioned by the Contractor as necessary.

The automated work cell shall be complete with all the equipment and material necessary for the safe, reliable operation and maintenance of the system.

Any equipment and/or function of the automated work cell not specified herein shall be designed and supplied as required by the overall design of the system.

2.1.4 Design Review Requirements

Design review requirements and approval of the final design shall be in accordance with the Eskom Design Review Procedure (240-53113685).

The Contractor shall present the design to the Employer for technical review along with all relevant drawings. A design review is a planned exercise to ensure that there is a common understanding of the applicable standards and specification requirements, and to provide an opportunity to scrutinize the design to ensure the requirements meet the Employer's requirements.

During this meeting, the comments of the Employer on the design will be reviewed and discussed in detail to finalize the design. The Contractor's installation and commissioning methodology will be reviewed as part of the design review.

The design shall be accepted by the Project Manager for approval.

2.1.5 Documentation Submission

The Contractor shall submit installation, commissioning, operating and maintenance manuals and procedures for the automated work cell for all sites.

2.1.6 Factory Acceptance Testing

The Contractor shall facilitate acceptance testing of the automated work cell prototype at the Contractor's premises.

Factory Acceptance Testing (FAT) Requirements:

- All safety functions shall be demonstrated during FAT.
- Testing shall verify the initiating device or condition, logic response, safety I/O, diagnostics, safe state, equipment response, alarm/indication, reset and prevention of automatic restart.
- FAT records shall identify the safety function tested, test method, expected result, actual result, witness/approval status, defects and closure evidence.
- Safety-related changes arising from testing shall be controlled, documented and verified before acceptance.

2.1.7 Training Proposal (Practical)

The Contractor shall submit a training proposal for practical training which will be approved by the Employer.

As a minimum, the training proposal shall address the following requirements:

Requirement	Description
Number of Participants	10
Requirements	This should be carried out as part of the installation and commissioning of the automated work cell at all sites and shall be based on the training proposal submitted by the Contractor.
Training Location	Each of the selected Eskom sites where the automated work cell will be installed.
Training Duration	Based on installation and commissioning duration per site, as proposed by the Contractor.
Training Modules	Installation, commissioning, operation, maintenance, software operation and troubleshooting, web-based application operation and troubleshooting, download and analysis of results, safety aspects.
Programme per Training Intervention	Proposal to be submitted by the Contractor.
Certification	Issuing certificates of attendance to all participants.

2.1.8 Supply of Equipment

The Contractor shall supply automated work cell systems complete with all accessories and material required, as per the approved design.

2.1.9 Quality Documentation

The Contractor provides the quality control plan and inspection test plan for all activities of this scope.

Quality Documentation Requirements:

- Supplier Quality Management Specification (240-105658000)
- Contract Quality Plan (CQP)
- Quality Control Plan (QCP)/Inspection and Test Plan (ITP)
- Method Statements
- Non-Conformance Reports (NCRs)
- Calibration certificates for all testing equipment
- Material certificates and test reports

2.1.10 Installation and Commissioning

The Contractor shall install and commission the automated work cell systems at the Employer's selected sites.

2.1.11 Practical Training

The Contractor shall provide practical training to the Employer as part of the installation and commissioning works at the selected sites.

2.1.12 Training Proposal (Theoretical)

The Contractor shall submit a training proposal for theoretical training which will be approved by the Employer.

As a minimum, the training proposal shall address the following requirements:

Table 4: Theoretical Training Requirements

Requirement	Description
Number of Participants	20
Requirements	Classroom training. Complete training manuals to be provided covering all training modules to be presented.
Training Duration	Suppliers to declare duration of training based on contractor's training proposal.
Training Modules	Installation, commissioning, operation, maintenance, software operation and troubleshooting, web-based application operation and troubleshooting, download and analysis of results, safety aspects. Aspects covering geomagnetic disturbances (GMDs) and geomagnetically induced current (GIC) theory shall be limited as there is sufficient publicly available literature on the topic. The training content of the training modules shall be approved by the Employer.
Program	Based on contractor's training proposal.
Certification	Issue certificates of attendance to all participants.

2.1.13 Theoretical Training

The Contractor shall provide theoretical training to the Employer once commissioning of all the sites has been completed.

2.1.14 Technical Support

The Contractor shall provide technical support to the Employer on an as-and-when required basis.

2.1.15 Knowledge Transfer

The Contractor may be required to participate in knowledge transfer workshops on request from the Employer, on an as-and-when required basis.

2.1.16 General Requirements

The following general requirements shall apply:

Table 5: General Requirements

Requirement	Description
Completeness	All components and accessories required for the completion and successful operation of the Work covered under the scope of this project, either specified in detail or not, shall be supplied by the Contractor as necessary.
Reliability	The automated work cell shall be complete with all the equipment and material necessary for the safe, reliable operation and maintenance of the system.
Design Completeness	Any equipment and/or function of the automated work cell not specified herein shall be designed and supplied as required by the overall design of the system.
Transportation	The Contractor shall provide transportation of all equipment and accessories required as part of the work to the relevant sites.
Storage	The Contractor shall provide suitable storage of all equipment during installation and commissioning activities.
Documentation	Provide all the required documentation pertaining to the automated work cell.

Table 6: Contractor's Plan Deliverables Summary

No.	Deliverable	Timing
1	Project kick-off and safety file clearance	Within 1 week of Contract Date
2	Contractor's inspection of Employer's selected sites	Within 2 weeks of Contract Date
3	Interim design of automated work cell	Within 4 weeks of Contract Date
4	Employer's review of interim design	Within 2 weeks of submission
5	Final design of automated work cell, including installation, commissioning, operating and maintenance procedures and manuals	Within 6 weeks of Contract Date
6	Employer's review of final design	Within 2 weeks of submission
7	Contractor procures material and equipment	Within 8 weeks of final design approval
8	Acceptance testing of prototype at Contractor's premises	Within 4 weeks of procurement completion
9	Submission of practical training proposal	Within 4 weeks of procurement completion
10	Supply, installation, commissioning, site acceptance testing and practical training at sites	To be confirmed
11	Theoretical training	After commissioning of all sites

2.2 Management meetings

Meetings will be held between the Employer, the Contractor and any other co-opted members. The Contractor will be represented at each meeting by appropriate members of its staff. All meetings will be chaired by the Project Manager.

The venue for these meetings will be as determined by the Project Manager. The Project Manager will prepare and issue the minutes of these meetings.

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

A summary of the planned meetings is provided in Table 2.

2.2.1 Kick Off Meeting

Kick-off meeting will be held within 1 week after the award of the contract. This meeting will cover Project implementation, the Scope of work, and Schedule. This will give the Contractor an opportunity to discuss all matters related to carrying out their responsibilities.

2.2.2 Progress Meetings

Weekly progress meetings will be held covering progress to date on the execution of the scope of works, and all associated risks, risk impact and risk mitigation.

2.2.3 Design Review Meetings

The Contractor shall present the Design to the Employer for technical review along with all relevant drawings. A design review in a planned exercise is envisaged to ensure that there is a common understanding of the applicable standards and specification requirements, and to provide an opportunity to scrutinize the design to ensure the requirements meet the Employer's requirements.

During this meeting, the comments of the Employer on the design will be reviewed and discussed in detail to finalize the design for the RTM system. The Contractor's installation and commissioning methodology will reviewed as part of the design review.

The design shall be accepted by the Project Manager for approval.

2.2.4 Ad-hoc Meetings

Ad-hoc meetings to discuss any matters related to the execution of the scope of work on an as-and-when required basis upon request from the Employer or the Contractor.

2.2.5 Meetings of a Specialist Nature

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works. Records of these meetings shall be submitted to the Project Manager by the person convening the meeting within five days of the meeting.

Table 7: Planned Meetings

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick off meeting: Covering Project implementation, the Scope of work, Schedule and Safety File Requirements. This will give The *Contractor* an opportunity to discuss all matters related to carrying out their responsibilities.	Once-off, shortly after award of the contract. Date, time and duration to be confirmed upon award of contract.	Eskom Research, Testing & Development Offices, Lower Germiston Road, Rosherville,	*Employer*, *Supervisor*, *Contractor* and others as determined by the *Project Manager*.
Design review meetings: Technical review of the *Contractor's* RTM system design, and installation and commissioning methodology	Frequency, date and time to be confirmed during kick-off meeting.	Remotely via Microsoft Teams or in-person at Eskom Research, Testing & Development.	*Employer*, *Supervisor*, *Contractor* and others as determined by the *Project Manager*.
Progress meetings: Covering progress to date on the execution of the scope of works, and all associated risks, risk impact and risk mitigation.	Weekly. Day, time and duration to be confirmed and agreed upon at kick off meeting.	Remotely via Microsoft Teams or in-person at Eskom Research, Testing & Development.	*Employer*, *Supervisor*, *Contractor* and others as determined by the *Project Manager*.
Adhoc meetings	As-and-when required. Date, time and duration to be confirmed.	Remotely via Microsoft Teams or in-person at Eskom Research, Testing & Development	*Employer*, *Supervisor*, *Contractor* and others as determined by the *Project Manager*.
Meetings of Specialist Nature	As-and-when required. Date, time and duration to be confirmed.	Remotely via Microsoft Teams or in-person at Eskom Research, Testing & Development	*Employer*, *Supervisor*, *Contractor* and others as determined by the *Project Manager*.

2.3 Contractor's management, supervision and key people

The contractor provides all the resources and competent technical people to execute the scope of this contract.

2.4 Provision of bonds and guarantees

N/A

2.5 Documentation control

Specify how documentation will be identified with an alpha numeric which indicates source, recipient, communication number etc. Provide details of any particular format or other constraints; for example that all contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself. State any particular routing requirements but note from TSC3 who issues what to whom.

2.6 Invoicing and payment

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

The *Contractor* shall address the tax invoice to

_____
and include on each invoice the following information:

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

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

2.7 Contract change management

If there are any changes to the Contractor's plan, it will be the Contactors responsibility to inform the Employer of such change. Any changes shall be agreed upon in writing between both the Contractor and Project Manager.

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

N/A

2.9 Insurance provided by the *Employer*

Refer to clause 8 Contract Data (Part one – Data provided by the Employer). For all Employer Insurance related queries, contact:

- Cluster Manager
- Eskom Insurance Management Services
- Eskom Holdings SOC Ltd
- Megawatt Park
- 011 800 2714

2.10 Training workshops and technology transfer

The contractor submit a training proposal for the **theoretical training** which will be approved by the Employer. As a minimum, the training proposal shall address the following requirements:

- Minimum Number of Participants: 10
- Requirements: Classroom training. Complete training manuals to be provided covering all training modules to be presented.
- Training Duration: Suppliers to declare duration of training based on contractor's training proposal.
- Training Modules: Should include but not be limited to the following aspects of the RTM system: Installation, commissioning, operation, maintenance, software operation and troubleshooting, web-based application operation and troubleshooting, download and analysis of results, safety aspects. Aspects covering geomagnetic disturbances (GMDs) and geomagnetically induced current (GIC) theory shall be limited as there is sufficient publicly available literature on the topic. The training content of the training modules shall be approved by the Employer.
- Program: Based on contractor's training proposal.
- Certification: Issue certificates of attendance to all participants.

- Provide theoretical training to the *Employer*, once commissioning all the sites have been completed.

- Provide technical support to the *Employer* on an as-and-when required basis.
    - The *Contractor* may be required to participate in knowledge transfer workshops on request from the *Employer*, on an as-and-when required basis.

2.11 Design and supply of Equipment

The *Employer's* design requirements are provided in the Employers requirements of this service.

a) The Contractor develops the detail design for the execution of works.

b) Any item of the conceptual design that is not feasible is corrected in the Contractor's detail design.

c) The Contractor's design includes schedule detailing the plant location code, size, type and make of all instrumentation and equipment utilized.

d) Design is approved when the Service Manager certifies sectional completion of the design activity.

e) The Employer may use the Contractor's design for any purpose related to the Employer's operational activities

(1) Engineering design is defined as being all activities required to translate the Contractor's scope of works, into a fully functional data capturing system.

2) All Engineering design activities are executed by the Contractor in active co-operation with the Service Manager.

3) The engineering design activities are phased to suit the Accepted Programme

4) A plant walk is performed including, but not limited to:

i. Verification of location and suitability of hardware installation points

ii. Verification of location and suitability of cable routing paths.

5) As a minimum, Engineering design consists of the development, technical clarification and

acceptance of the following:

i. Engineering programme

ii. Index and master register of documents

iii. Documentation synopsis

iv. OEM best practices

v. Cable Routing Diagrams

vi. Cable & Termination schedules

vii. Engineering and maintenance procedures

ix. Bill of Materials (make, model, rating, quantity etc…)

6) The Contractor and the OEM identify any discrepancies that would lead to shortcomings in the design and makes the Employer aware of such discrepancies and provides recommendations

7) The design to be comply with the applicable standards

2.12 Parts of the *works* which the *Contractor* is to design

The *Contractor* is responsible for the design of the entire *Works*..

The Contractor provides all equipment and services and executes all works to fulfil all requirements specified in this Service Information. 2) The works complies with professional engineering practice and standards. The works is designed for the environmental conditions prevailing at the Power Station Sites.

2.13 Procedure for submission and acceptance of *Contractor*'s design

The *Contractor*'s design shall comply with all design requirements stated in this contract.

A detailed design phase shall precede the installation phase of the Project during which the design drawings are submitted to the *Employer* for acceptance.

1) The Contractor submits any drawing or documentation that will fulfil the requirements of this works

2) All drawings or documentation are submitted to the Project Manager in a formal communication.

3) Statement of design acceptance or a list of design faults will be issued within one week of design receipt by the Service Manager

4) The Contractor submits a written design change request to the Service Manager for any modification.

5) The Contractor supplies a written modification description, reason for modification, drawings, method statement, cost estimate and time estimate for the proposed change

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6) The Contractor does not implement the modification before he obtains written approval for the design change from the Employer

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2.14 Other requirements of the *Contractor*'s design

The *Contractor* is mandated in terms of Construction Regulations 2014: Duties of Designer, 6(1) g to fulfil theduties described therein. Any risk associated with the *Contractor's* design shall be highlighted to the *Employer* together with mitigation measures. These risks shall be included in the project risk register.

2.15 Use of Contractor Design

(1) The Contractor's design is considered property of the Employer.

2) The Contractor's design is made use of during future operation and expansion of the system (where applicable)..

2.16 Design of Equipment

To be supplied by the Contractor prior the execution and approve by Eskom.

2.17 As-built drawings, operating manuals and maintenance schedules

All As-built drawings, operational manuals and maintenance schedules shall be provided to the *Employe*r inadherence with the applicable requirements.

(1) 'As Built' documentation is supplied by the Contractor to the Project Manager upon completions of works.

(2) Hard copies and soft copies of As Built documentation is provided by the Contractor as part of the works

(3) Acceptance of the ‘As Built’ documentation is a pre-requisite for the completion of the works

(4) The documents are reviewed by the Service Manager for correctness and conformance to the accepted design.

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

None

2.19 Management of work done by Task Order

Task order will be issued by the Service Manager.

In the event that the services are not required anymore, the Service Manager will inform the Contractor in advance.

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

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The Contractor and his employees shall comply with the relevant Eskom policies, standards, procedures, and other statutory regulatory requirements and specifications. The Contractor complies fully to the requirements of the Occupational Health and Safety Act of 1993.

3.2 Environmental constraints and management

The Contractor shall construct and/ or implement all the necessary environmental protection measures in each area before any production work will be allowed to proceed. The Employer may suspend the Works at any time in terms the Conditions of Contract should the Contractor, in the Employer's opinion, fail to implement, operate or maintain any of the environmental protection measures adequately.

Environmental management is concerned not only with the results of the Contractor's operations to carry out the Works but also, and most importantly, with the way his operations are carried out. It is thus a requirement that the Contractor shall comply with the environmental requirements. The Contractor shall comply with all relevant laws, environmental legislation and regulations, conditions of environmental approvals, environmental management plans, and Employers Policies and Procedures.

The Contractor shall comply with the environmental criteria and constraints stated in the Employer's SHE specification.

The Contractor ensures that all goods, services or Works supplied in terms of the Contract comply with all applicable environmental legislation.
The Contractor is responsible to keep the work area clean of any rubble. All waste introduced and/or produced on the Employer's premises by the Contractor for this contract, is handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry and Eskom environmental requirements including Eskom Environmental waste management procedure 32-245.

Where required, the Employer provides special colour coded bins for refuse disposal. The Employer will empty these bins.

The Contractor ensures that all workers under his control strictly adhere to the correct use of refuse bins.

3.3 Quality assurance requirements

The Contractor complies with the Eskom Quality Requirements Standards.

- The Contractor and all sub-Contractors to comply with the Employer's quality requirements including those listed in the Employers specification document called "Supplier Quality Management Specification" number 240-105658000
- Certification to ISO 9001 is a mandatory requirement for this contract. The Contractor uses the QMS for all phases of the Project. The Contractor provides evidence of a fully implemented QMS within its own organisation. The Employer may at his sole discretion carry out an audit on any supplier; sub-supplier's or Subcontractor's QMS for acceptance.

4 Procurement

The Contractor is responsible for all procurement of materials required for the installation.

and commissioning of the Works.

The Contractor must:

• Ensure that all equipment and materials are inspected. The Contractor must also inform the Sevice.

Manager to arrange for the Eskom representatives to inspect the equipment and materials before it is

delivered to Site.

• Ensure that all the relevant factory tests are conducted on the equipment and that these tests are

witnessed by both the Contractor as well as Eskom representatives.

• Submit calibration certificates to the Service Manager for all equipment used for testing.

The Contractor will provide all the critical spares for the plant as part of the Works. (refer to Employer's

Engineering Design for the critical spares list)

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4.1 People

4.1.1 Minimum requirements of people employed

People providing the works will have been declared competent in writing to carry out the works. They will abide by all the rules and regulations as set out by Employer. They are prohibited from being or going to any other site other than the one where the work is being executed.

4.1.2 BBBEE and preferencing scheme

Eskom's policy is to maximise purchases from Black or Black Empowering Enterprises (BEE's) whether Black Woman-owned, small or Large Black or Black empowering suppliers. The purpose is to promote entrepreneurship in black communities and give black business access to the mainstream of business opportunity.

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

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

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[Insert the agreed ASGI-SA Compliance Schedule here]

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

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

4.2 Subcontracting

4.2.1 Preferred subcontractors

None

4.2.2 Subcontract documentation, and assessment of subcontract tenders

a) The Contractor submits the proposed contract data for each subcontracting for acceptance to the Service Manager.
b) The Contractor prepares a subcontracting document as according to the NEC Contract.
c) The Contractor takes note that their Subcontractors Safety Files will be accepted by the Contractor's Safety Manager before it is handed to the Employer's SHE practitioner/Officers for verification of compliance before any work commences.
a) Proof of acceptance by the Contractor Safety Manager needs to be in the Safety file when handed over to Employer's SHE Practitioners for verification.

4.2.3 Limitations on subcontracting

a) The Contractor does not sub-contract more that 25% of the contract value to another enterprise that does not have equal or higher B-BBEE status level, unless the intended sub-contractor is an Exempted Micro Enterprise that has the capability and ability to execute the sub-contract.
b) In relation to a designated sector, the Contractor will not be allowed to sub-contract in such a manner that the local production and content of the overall value is reduced below the stipulated minimum threshold (Percentage of the specific contract).
c) The Contractor does not subcontract with his subsidiary companies as this may be interpreted as subcontracting with himself and / or using their subsidiaries for fronting. Where the Contractor subcontracts with a subsidiary this must be declared in tender documents.

4.2.4 Attendance on subcontractors

N/A

4.3 Plant and Materials

4.3.1 Specifications

The Contractor is required to submit a comprehensive Quality Management System (QMS) for all phases of the project. This QMS must comply with the requirements of 240-105658000. The Contractor and all of the Contractor's suppliers must hold a compliance certificate for their QMS to the requirements of ISO 9001:2015. The Employer reserves the right to conduct any audits in this regard.

Documents are to be submitted for review by the Employer after the Contract Date and before commencement of work.

The Contractor must submit a detailed Quality Manual and Quality Control Plan which will be reviewed and accepted/rejected by Eskom.

All Plant and Materials are supplied new, and of materials most suited to the particular intended duty,including parts subjected to or affected by high operating temperature and/or pressure.

Plant and Material protection is suitable for the Site environmental conditions to which they are exposed.

4.3.2 Correction of defects

The Service Manager Manager issues the defects certificate at the later defect date and the end of the last defect correction period. The Employer's right in respect of the defect which the supervisor has not found and notified are not affected by the issue of the defect certificate.
The Contractor contacts the Service Manager to gain access to the site to correct defects.

4.3.3 *Contractor*'s procurement of Plant and Materials

The Contractor is responsible for all procurement of materials required for the construction, installation and commissioning of the Works. The Contractor must:

- Ensure that all equipment and materials are inspected. The Contractor must also inform the Project Manager to arrange for the Eskom representatives to inspect the equipment and materials before it is delivered to Site.
- Ensure that all the relevant factory tests are conducted on the equipment and that these tests are witnessed by both the Contractor as well as Eskom representatives.

Submit calibration certificates to the Project Manager for all equipment used for testing.

4.3.4 Tests and inspections before delivery

Eskom and its representatives will carry out inspections at their own discretion. All inspections and testing are to be performed in accordance with the QCP developed by the Contractor and accepted by Eskom and its representatives. A factory release inspection does not release the Contractor from their obligations.

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

None

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4.3.6 Cataloguing requirements by the *Contractor*

None

5 Working on the Affected Property

The contractor complies to Eskom Safety, Health Environmental and Quality procedures**.**

5.1 *Employer*'s site entry and security control, permits, and site regulations

The *Contractor* shall be responsible for the planning and arrangement, of the Site to ensure safe, secure andefficient progress of the *Works* throughout the entire Project duration.

All the Contractor's employees are to attend a mandatory site safety induction course before they are allowed to work on site. It is the responsibility of the Contractor to ensure that all of their staff has attended the induction. The Contractor must compile their own safety file which has to be approved by Eskom's safety officer. This file must be approved before the Contractor may attend the safety induction course.

The Contractor must provide a list of all employees, along with the dates and times of arrival, at least 2 days prior to arrival on site.

All individuals entering Eskom Power Station will be subject to alcohol testing daily. No person found to be intoxicated will be admitted on the premises. All Covid-19 protocols must be followed by all individuals prior to entering and throughout their entire duration on Site. It is the responsibility of the Contractor to ensure that their staff is compliant.

5.2 People restrictions, hours of work, conduct and records

a) The Limited Access Register (LAR) will used where applicable by the Eskom personnel who are in charge of the plant. It is used to maintain control over the individuals in the plant as well as activities taking place on the plant that are not covered by the Plant Safety Regulation and Operating Regulations for High Voltage Systems.
b) The Project Manager or Supervisor will accompany the Contractor for the first instance of working under the LAR of the specific plant area. Thereafter, the Contractor is expected to know and abide the rules and regulations which are set out.
c) The works must be executed under normal working hours should there be overtime requirements, the contractor must submit a request to work overtime to the project manager for acceptance.
d) Contractor keeps records of his people on Site, including those of his/her Subcontractors which the Project Manager or Supervisor have access to at any time. These records may be needed when assessing compensation events.

5.3 Health and safety facilities on the Affected Property

Local Safety Procedures

The Contractor must abide by all Local Safety Procedures, available from Eskom on request.

5.4 Environmental controls, fauna & flora

a) No fauna or flora will be collected or removed from any farm by any visitor without written permission of the landowner, in which case cognizance will be taken of appropriate provincial legislation pertaining to fauna and flora.
b) Under such cases Eskom Holding's ethical policies and guidelines will be strictly applied.

5.5 Cooperating with and obtaining acceptance of Others

a) The Contractor shall co-operate with others in obtaining and providing information which they need in connecting with the works.

b) The Contractor shall share the working area with others in executing the works.
The contractor cooperates with others in obtaining and providing information which they need in connection with the works.

5.6 Records of *Contractor*'s Equipment

a) The Contractor's attention is drawn to the applicable regulation framed under the Occupational Health and Safety Act, 1983 (Act No. 6 of 1983)
b) When working in built-in areas, the contractor shall provide and use suit able and effective silencing devices for pneumatic tools and other plant would otherwise cause a noise level exceeding 85 Db(A) during excavation and other works.
c) Alternatively, the Contractor shall by means barriers, effectively isolate the source of any such noise in order to comply with the said regulation.

5.7 Equipment provided by the *Employer*

None

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

a) Potable Water Supply
- Potable water is available at the existing points.

b) Electrical Power Supply
- Power may not available at the existing points.

c) Toilet Facilities
- The Employer provides the Contractor access to existing toilet facilities at the power stations.

d) Catering Facilities
- The Contractor are not allowed to use the Employer's dining facilities, unless a specific agreement has been made between the Contractor and Eskom Catering and Accommodation Services (ECAS).
- The Contractor may buy take away meals from the fast foods outlet on Site.

e) Medical Facilities
- The Contractor provides a First Aid service to his employees and subcontractors. In the case where these prove to be inadequate, like in the event of a serious injury, the Employer's Medical Centre and facilities will be available.
- Outside the Employer's office hours, the Employer's First Aid Services are only available for serious injuries and life-threatening situations.
- The Employer recovers the costs incurred, in the use of the above Employer's facilities, from the Contractor

5.8.2 Provided by the *Contractor*

The contractor should provide facilities they deem necessary in executing the work. This must be discussed with the Service Manager prior to commencement of work.

The Contractor shall supply all the necessary equipment and material required to execute the works, including portable ablution facilities and proper eating facilities for their employees.

5.9 Control of noise, dust, water and waste

Earplugs should be worn if excessive noise will be generated by machinery. Dust masks will be worn to prevent dust inhalation.

5.10 Hook ups to existing works

a) The Contractor must inform the service manager and the engineer if a need arises of hooking up on existing work.
b) The project engineer will then verify the safe use of any existing structure as a support.

5.11 Tests and inspections

5.11.1 Description of tests and inspections

Performance/Functionality tests after Completion
Eskom Quality department together with the Project Manager, Engineer and Contractor will sign off the works as having met all the requirements as set out in the works information after completion.

5.11.2 Materials facilities and samples for tests and inspections

N/A

6 List of drawings

6.1 Drawings issued by the *Employer*

The *Employer will issue required drawings* which apply to this contract. at Contract Date

Drawing number	Revision	Title