



TENDER NO. TCML/MGD/2019/M-50

**TENDER FOR THE PROPOSED TCML 66/5.5 KV
SUBSTATION AND TRANSFORMERS/SWITCH
GEAR MAINTENANCE SERVICE**

MAY, 2019

CLIENT:

TATA CHEMICALS MAGADI LTD
P.O. BOX 1-00205
MAGADI

THE HEAD OF PROCUREMENT

TATA CHEMICALS MAGADI LTD.
P.O. BOX 1-00205
MAGADI



SCOPE OF WORK

TATA CHEMICALS MAGADI 66/5.5 KV SUBSTATION ANNUAL MAINTENANCE SCOPE

SAFETY MEASURES AND REQUIREMENTS

- i) A thorough site risk assessment to be done before commencement of work.
- ii) All personnel involved in the job to be safety inducted for familiarization with the scope of work and the risks involved.
- iii) A risk assessment board to be availed on site furnished with the permit to work, risk assessment form, hot work permit and job procedure.
- iv) Ensure all electrical connections have been isolated and a Lock out, Try out, Tag out procedure have been followed before taking over the plant for the job.
- v) A tool box talk to be held before commencement of every shift to highlight on the new risks encountered or expected and how to mitigate them.
- vi) A person in charge of safety to be identified and be known to all the personnel during every shift.
- vii) A first aid kit to be availed on site at all times and a shift first aider identified.

- viii) All personnel shall wear the mandatory PPE at all times and ensure use of other relevant PPE depending on the nature of work and condition of the work site.
- ix) Housekeeping to be done at every stage of work and thoroughly at every close of shift.

TOOLS REQUIRED AND CONSUMABLES REQUIRED

- i) Provision of correctly rated generator to run oil filtration machine and any other powered equipment
- ii) provision of own assorted fittings to be used on various transformers oil filtration
- iii) Provision of own oil testing equipment
- iv) Provision of own oil filtration equipment
- v) Gasket will be provided by Tata where need be
- vi) Silica gel will be provided by Tata where need be
- vii) Transformer Oil for top up will be provided by Tata
- viii) Provision of own electrical and mechanical technician full toolbox.

WORKS TO BE ARRANGED BY CONTRACTOR.

16MVA, 66/5.5kV Power Station Transformer-Inspections, Repairs, Maintenance & Testing Scope

<u>TASK DESCRIPTION</u>	<u>UoM NO:</u>	<u>QUANTITY</u>	<u>UNIT</u>
		<u>(1</u>	<u>COST(lum)</u>
Inspect terminal bushings of any hippings and/or			
1 tracking signs			
2 Check and repair any leakages observed			
3 Replace breather silica gel			
Replace tap-changer oil with new oil and service tap			
4 changer			
Extract bottom oil Sample and carry out Oil			
Breakdown Dielectric Voltage (BDV) test before oil			
5 filtration			
Extract bottom oil Sample and carry out oil Dissolved			
6 Gas Analysis (DGA) test before oil filtration			
Carry out oil filtration till transformer oil attains			
7 required BDV Value			
Extract bottom oil sample and carry out oil Breakdown			
8 Dielectric Voltage (BDV) test after oil filtration			
Carry out Winding IR Tests: HV-E; LV-E and HV-LV and			
9 obtain Polarization Index for all the tests			
10 Test for Transformer Earthing Resistance			
Test Mechanical Transformer Protective devices i.e			
Winding & Oil Temperature Switches, Buchholz relay,			
11 oil level switch, pressure relief valve			
12 Carry out transformer body general cleaning			
Carry out inspection on copper tube connections,			
13 clean and tighten terminations properly			
Issue a comprehensive inspection, maintenance and			
14 test report			

66kV Outdoor SF6 Circuit Breaker

<u>TASK DESCRIPTION</u>	<u>UoM (NO)</u>	<u>QUANTITY</u>	<u>UNIT COST(lum)</u>
		<u>(1 BREAKER)</u>	
1 Carry out breaker visual inspection for any damages			
2 Inspect breaker for correct SF6 gas level			
Test breaker for Mechanical & Electrical Spring			
3 Charging operation			
4 Test Breaker for Local and Remote Close Operation			
Test Breaker Status Indicators for soundness and			
5 correct operation			
6 Carry out Breaker IR Test			

- 7 Carry out Breaker Contact Resistance Tests
- 8 Carry out Breaker Closing and Tripping Timing Tests
Issue a comprehensive inspection, maintenance and
- 9 test report

66kV Outdoor Current Transformers - 6 Cores

<u>TASK DESCRIPTION</u>	<u>UoM (SET)</u>	<u>QUANTITY (1 SET)</u>	<u>UNIT COST(lum)</u>
1 Carry Out CT Ratio Test			
2 Carry Out CT Polarity Test			
3 Carry Out CT Burden Test			
4 Carry Out CT Secondary Winding DC Resistance Test			
5 Carry Out CT IR Test			
6 Carry Out Magnetization Curve Test			
Carry Out CT general body cleaning and tighten any			
7 loose secondary terminations			
Issue a comprehensive inspection, maintenance and			
8 test report			

66kV Outdoor Voltage Transformers - 6 cores

<u>TASK DESCRIPTION</u>	<u>UoM(SET)</u>	<u>QUANTITY (1 SET)</u>	<u>UNIT COST(lum)</u>
1 Carry Out VT Ratio Test			
2 Carry Out VT Polarity Test			
3 Carry Out VT Burden Test			
4 Carry Out VT Secondary Winding DC Resistance Test			
5 Carry Out VT IR Test			
6 Carry Out Magnetization Curve Test			
Carry Out VT general body cleaning, Sealing of Oil			
Leakages and tighten any loose secondary			
7 terminations			
Issue a comprehensive inspection, maintenance and			
8 test report			

5.5kV Switchgear: Whipp and Bourne, Reyroll, Chint -

<u>TASK DESCRIPTION</u>	<u>UoM (NO)</u>	<u>QUANTITY 15</u>	<u>UNIT COST(lum)</u>
1 Carry out Visual Inspection for any damages			
Test for Proper Rack-In-Rack-Out Operations on			
2 Reyrolle and Chint breakers			
Test for Mechanical & Electrical Spring Charging			
3 operation			
4 Test for Local Close and Trip Operation			

- Test Status Indicators for soundness and correct
- 5 operation
- 6 Carry out IR Test
- 7 Carry out Contact Resistance Tests
- 8 Carry out Closing and Tripping Timing Tests
- Carry out inspection for correct gas level on Reyrolle
- 9 breakers
- Issue a comprehensive inspection, maintenance and
- 10 test report

5.5kV Switchgear & Transformer Protection Relays: Whipp and Bourne, Reyroll, Chint

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>38</u>	<u>UNIT COST(lum)</u>
1 Carry out all enabled protection functions tests on each relay.			
2 Calibrate electro-mechanical relays and carry out metering accuracy tests for numerical relays			
3 Issue a comprehensive inspection, maintenance and test report			

PAM TRANSFORMERS 2.5 Mva ONAN, 3 Mva ONAF, 1780 LTRS OIL CAPACITY(Pam transformer 1,2 & 3

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>3 Transformers</u>	<u>UNIT COST(lum)</u>
1 Inspect terminal bushings of any chipping, oil leaks and/or tracking signs. Do correction where necessary			
2 Inspect terminations for any looseness or oxidation. Clean and tighten where required.			
3 Check and repair leakages. Replace worn out gasket where required			
4 Replace Breather Silica Gel			
5 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test before oil filtration			
6 Extract bottom oil sample and carry out oil Dissolved Gas Analysis (DGA) test before oil filtration			
7 Carry out oil filtration till transformer oil attains required BDV Value			
8 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test after oil filtration			
9 Carry out Winding IR Tests: HV-E; LV-E and HV-LV			
10 Test for Transformer Earthing Resistance			
11 Service Radiator Cooling Fans			
12 Carry out transformer body general cleaning			

- Issue a comprehensive inspection, maintenance and
13 test report

SAM Plant TRANSFORMERS 1250 KVA 800 kg OIL CAPACITY(Factory feeder 1, Factory feeder 2, Grinding & Screening s

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>3 Transformers</u>	<u>UNIT COST(lum)</u>
1 Inspect terminal bushings of any chipping, oil leaks and/or tracking signs. Do correction where necessary			
2 Inspect terminations for any looseness or oxidation.			
3 Clean and tighten where required.			
4 Check and repair leakages. Replace worn out gasket where required			
5 Replace Breather Silica Gel			
6 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test before oil filtration			
7 Extract bottom oil sample and carry out Oil Dissolved Gas Analysis (DGA) test before oil filtration			
8 Carry out oil filtration till transformer oil attains required BDV Value			
9 Extract Bottom oil sample and carry out Oil Breakdown Dielectric Voltage (BDV) test after oil filtration			
10 Carry out Winding IR Tests: HV-E; LV-E and HV-LV			
11 Inspect and repair earth terminations, provide earth rod/net where required. Test for Transformer Earthing Resistance.			
12 Inspect, and test functionality of Buchholz relay.			
13 Carry out transformer body general cleaning			
Issue a comprehensive inspection, maintenance and test report			

SAM Plant ESP TRANSFORMERS 800 KVA 715 litres oil capacity, (ESP main transformer)

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>1 Transformer</u>	<u>UNIT COST(lum)</u>
1 Inspect terminal bushings of any chipping, oil leaks and/or tracking signs. Do correction where necessary			
2 Inspect terminations for any looseness or oxidation.			
3 Clean and tighten where required.			
4 Check and repair leakages. Replace worn out gasket where required			
5 Replace Breather Silica Gel			
6 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test before oil filtration			

- Extract bottom oil sample and carry out oil Dissolved
- 6 Gas Analysis (DGA) Test before oil filtration
- Carry out oil filtration till transformer oil attains
- 7 required BDV Value
- Extract bottom oil sample and carry out oil Breakdown
- 8 Dielectric Voltage (BDV) test after oil filtration
- 9 Carry out Winding IR Tests: HV-E; LV-E and HV-LV
- Inspect and repair earth terminations, provide earth rod/net where required. Test for Transformer Earthing
- 10 Resistance.
- 11 Inspect, and test functionality of Buchholz relay.
- 12 Carry out transformer body general cleaning
- Issue a comprehensive inspection, maintenance and
- 13 test report

SAM Plant ESP TRANSFORMERS 121.87 KVA step-up transformers (ESP Field transformers)

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u>	<u>UNIT COST(lum)</u>
1 Inspect terminal bushings of any chipping, oil leaks and/or tracking signs. Do correction where necessary		2	
2 Inspect terminations for any looseness or oxidation. Clean and tighten where required.			
3 Check and repair leakages. Replace worn out gasket where required			
4 Replace Breather Silica Gel			
5 Extract Bottom Oil Sample and carry out Oil Breakdown Dielectric Voltage (BDV) Test before oil filtration			
6 Extract Bottom Oil Sample and carry out Oil Dissolved Gas Analysis (DGA) Test before oil filtration			
7 Carry out Oil Filtration till transformer oil attains required BDV Value			
8 Extract Bottom Oil Sample and carry out Oil Breakdown Dielectric Voltage (BDV) Test after Oil Filtration			
9 Carry out Winding IR Tests: HV-E; LV-E and HV-LV			
10 Inspect and repair Earth terminations, Provide earth rod/net where required. Test for Transformer Earthing Resistance.			
11 Inspect, and test functionality of Buchholz relay.			
12 Carry out transformer body general cleaning			
13 Issue a comprehensive inspection, maintenance and test report			

SAM Plant ESP TRANSFORMERS 121.87 KVA step-up transformers (ESP Field transformers)

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>2 Transformers</u>	<u>UNIT COST(lum)</u>
1 Inspect Terminal Bushings of any Chipping oil leaks and or Tracking Signs. Do correction where necessary			
2 Inspect terminations for any looseness or oxidation. Clean and tighten where required.			
3 Check and repair leakages. Replace worn out gasket where required			
4 Replace Breather Silica Gel			
5 Extract Bottom Oil Sample and Carry Out Oil Breakdown Dielectric Voltage (BDV) Test before Oil Filtration			
6 Extract Bottom Oil Sample and Carry Out Oil Dissolved Gas Analysis (DGA) Test before Oil Filtration			
7 Carry out oil filtration till transformer oil attains required BDV Value			
8 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test after oil filtration			
9 Carry out Winding IR Tests: HV-E; LV-E and HV-LV			
10 Inspect and repair Earth terminations, Provide earth rod/net where required. Test for Transformer Earthing Resistance.			
11 Inspect, and test functionality of Buchholz relay.			
12 Carry out transformer body general cleaning			
13 Issue a comprehensive inspection, maintenance and test report			

POWER STATION AND REPAIR SHOP TRANSFORMERS(500 kVA, 495 LTRS OIL & 315 kva, 475 LTRS OIL)

<u>TASK DESCRIPTION</u>	<u>UoM(NO)</u>	<u>QUANTITY</u> <u>2 Transformers</u>	<u>UNIT COST(lum)</u>
1 Inspect terminal bushings of any chipping, oil leaks and or tracking signs. Do correction where necessary			
2 Inspect terminations for any looseness or oxidation. Clean and tighten where required.			
3 Check and repair leakages. Replace worn out gasket where required			
4 Replace Breather Silica Gel			
5 Extract bottom oil sample and carry out oil Breakdown Dielectric Voltage (BDV) test before oil filtration			
6 Extract bottom oil sample and carry out Oil Dissolved Gas Analysis (DGA) test before oil filtration			
7 Carry out oil filtration till transformer oil attains required BDV Value			

- Extract bottom oil sample and carry out oil Breakdown
- 8 Dielectric Voltage (BDV) test after oil filtration
- 9 Carry out Winding IR Tests: HV-E; LV-E and HV-LV
- Inspect and repair Earth terminations, Provide earth rod/net where required. Test for Transformer Earthing
- 10 Resistance.
- 11 Inspect, and test functionality of Buchholz relay.
- 12 Carry out transformer body general cleaning
- Issue a comprehensive inspection, maintenance and
- 13 test report

QUALIFICATION FOR TENDERING

1.1. Mandatory Requirements

The following must be submitted together with bid:

- i) **Certified** copy of Certificate of incorporation
- ii) Copy of Valid Tax Compliance Certificate
- iii) **Certified** copy of **Current** Single business permit
- iv) **WIBA** Compliant, and show proof.
- v) VALID Class A1 Electrical Contractor License from ERC

1.2 Other Requirements

The Bidder shall submit information which will enable the technical team to evaluate their capability to undertake the works. For the purpose of these works, it is required that the firms should provide the following:-

- i) Similar previous experience
- ii) Equipment holding attach proof and lease agreements; any of the two.
- iii) Professional and technical staff (attach CV's, testimonials & Certificates.
- iv) Financial Status
- v) Completion period (attach detailed work Schedule)

All information in the attached forms should be provided in full and failure to do so will constitute grounds for disqualification.

There shall be a mandatory pre-tender site visit as specified in the table below:

Date	13 TH MAY 2019
Time	1430 Hrs.
Venue	LAKE MAGADI

**TCML 66/5.5 KV SUBSTATION AND TRANSFORMERS/SWITCHGEAR SERVICE
EVALUATION CRITERIA**

	PRELIMINARY EVALUATION CRITERIA			Requirement	FIRM 1 SCORE	FIRM 2 SCORE	FIRM 3 SCORE	
1.	Attached copy of Certificate of Incorporation			Mandatory	YES/NO	YES/NO	YES/NO	
2.	Copy of Company PIN/VAT Certificate			Mandatory	YES/NO	YES/NO	YES/NO	
3.	Valid Tax Compliance Certificate			Mandatory	YES/NO	YES/NO	YES/NO	
4.	VALID Class A1 Electrical Contractor License from ERC			Mandatory	YES/NO	YES/NO	YES/NO	
	PRELIMINARY EVALUATION FINAL SCORE				YES/NO	YES/NO	YES/NO	
	TECHNICAL CRITERIA			SCORE	MAX SCORE	FIRM 1 SCORE	FIRM 2 SCORE	FIRM 3 SCORE
1.	Firm registered by ERC as Class A1- Contractor. <ul style="list-style-type: none">Proof of Valid Class A1 ERC Class A1 Contractor (Firms which are NOT Class A1 Shall be DISQUALIFIED)Licensed Electrician: Professional Engineer				20%			
2.	Firm Relevant Experience (Proof of transformer service including sensitive tests) <ul style="list-style-type: none">At least one job of servicing a transformer of 5 MVA or greater and at 33 kV or greater.At least one job of servicing switchgear at medium voltage				30%			

	<ul style="list-style-type: none"> Conducted Dissolved Gas Analysis for at least one transformer 					
3.	<p>Technical Staff Competency & Safety Awareness</p> <ul style="list-style-type: none"> Team Leader is a Professional Engineer & Class A1 Electrician with proof of both current Licenses. Other Staff (At least 2No.) includes both Trained Engineers (Degree Holders) and Technicians (Diploma Holders) with at least 5 years of experience. Safety Awareness: Demonstration of Works Potential Hazards, Risks as well as measures to reduce risk levels. WIBA Insurance Cover: Proof of valid WIBA Insurance covering atleast the total number of staff proposed. 		20%			
4.	<p>Works Plan</p> <ul style="list-style-type: none"> Demonstration of understanding of the scope of works as given by the employer. Detailed Gannt Chart. (Pro-rate if not detailed enough to capture all the employer's tasks). Proposed Manning Levels: Indicated on the proposed planning. 		20%			
5.	<p>Site Visit by the Vendor</p> <ul style="list-style-type: none"> Proof of duly signed site visit attendance certificate for the subject tender. 		10%			
	FINAL SCORE					

Note:

- All bidders must provide above information together with their bids.
- A bidder must score a minimum of sixty five (65) points at the Technical Stage to qualify for Financial Evaluation.

The bidders must submit the Technical and The Financial proposals separately.

A. TECHNICAL PROPOSAL –

Two copies in sealed envelopes clearly marked “**TECHNICAL PROPOSAL FOR TENDER NO: TCML/MGD/2019/M-50–TENDER FOR THE PROPOSED_TCML 66/5.5 KV SUBSTATION AND TRANSFORMERS/SWITCHGEAR SERVICE**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope. (The firms will ensure that there is no reference at all on their financial proposal within the technical proposal envelope) .

B. FINANCIAL PROPOSAL -

Two copies in sealed envelopes clearly marked “**FINANCIAL PROPOSAL FOR TENDER NO: TCML/MGD/2019/M-50- TENDER FOR THE PROPOSED PROPOSED_TCML 66/5.5 KV SUBSTATION AND TRANSFORMERS/SWITCHGEAR SERVICE**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope (The financial proposal shall include all taxes applicable).

Addressed to:

**The Head of Procurement,
TATA Chemicals Magadi Limited
P.O. Box 1-00205,
MAGADI.**

The same will be deposited in the tender box situated in Administration Block, Magadi OR Collection Centre, at Enterprise Road – Avon house, Industrial area so as to reach him/her on or before **5.00 p.m. on 17TH May, 2019.**

The Management reserves the right to accept or reject any bids and does not bind itself to any reasons for doing so.

PART A

TENDER AND CONTRACT

CONDITIONS OF TENDER AND INSTRUCTION TO TENDERS

1 INSTRUCTIONS TO TENDERS

- a) The tender validity period shall be sixty (60) days from the tender opening date with an option of extension by further thirty (30) days from expiry of tender validity period.
- b) The Employer is not bound to accept any tender and can nullify the whole tender and call fresh tenders. Until and unless a written acceptance or a formal agreement is signed, this tender does not form a binding contract between the tenderer and the Employer.
- c) Tenderer shall satisfy himself before submitting his tender as to the nature of the ground, the subsoil, the topography of the site, the means of access to site, the accommodation as to risks, contingencies and other circumstances which may influence or affect the sufficiency of their tenders. Tenderers **MUST** visit the site or cause it to be visited by a competent and reliable representative in order to obtain information that may be necessary for preparing a bid and enter into contract. Whilst satisfying that condition the tenderer shall be responsible for his traveling and accommodation arrangements.
- d) Any failure by the tenderer to obtain all necessary information for the purposes of making his tender or fixing the several rates of prices therein shall not relieve him from any risks or liabilities in connection with or for the fulfillment of the contract.
- e) The Contractor **MUST** understand and shall comply with the Employer's site rules and statutory requirements on Safety, Health and Environmental (SHE). The Employer reserves the right to enforce this requirement.
- f) If it is found on examination of a tender that there is a discrepancy between the tender Sum and the amount arrived at by the valuing the quantities at the rates or prices set against them by the tenderer, then the Tender Sum shall remain unaltered. The necessary corrections to adjust the revised total to correspond with the Tender Sum shall be made by means of a compensating percentage increase or decrease. Any such percentage increase or decrease shall apply to all rates in the Bills of Quantities excluding Contingency, Prime Cost and Provisional Sums. This percentage correction factor will be applied to rates for work measured in Certificate valuations and the measurement of variations when preparing the final account.
- g) Should the tenderer notice any discrepancy or conflict between any of the Tender Documents he must inform the Employer, in writing prior to the date of submission of the tenders. Should any discrepancy or conflict between sections of the Tender Documents continue to exist without notice by either party after signing of the contract, then the Employer will give his ruling in writing indicating the overriding clause or section.
- h) Any recipient of the documents for the proposed Contract for the purpose of submitting a tender (whether he submits a tender or not) shall treat the details of this document as "Private and Confidential".
- i) In no case shall the expenses incurred during the preparation of the tender be reimbursed to the tenderer.
- j) The tenders shall be submitted in plain sealed opaque envelope and shall be endorsed "

THE PROPOSED

**THE HEAD OF PROCUREMENT
TATA CHEMICALS MAGADI LIMITED
P O Box 1 - 00205
MAGADI**

- k) Tenderers will not be permitted to alter their bids after they have been opened and only those clarifications which will not change the substance of the tenders will be permitted.

- l) On receipt of the written notification that his tender has been accepted the successful tenderer shall make all the necessary preparations for commencing work pending execution of the formal agreement.
- m) Any tender may be disqualified if it is not complete and accompanied by all the items required to be submitted with the bid in compliance with these Instructions to Tenders.
- n) The Contractor's terms do not form part of this contract unless expressly agreed and documented in writing beforehand. It is his responsibility to perform the work/services to the highest standard of workmanship. The Contractor's occupancy of the site shall not restrict authorized entry by other parties.
- o) The Contractor must avoid any social conduct that is unacceptable to the community and which could prejudice the interest and reputation of the Employer (This will include misconduct both in public and private places).
- p) The Contractor and his/her employees involved in this contract **MUST** be inducted on safety by the Employer before commencement of the works. **No Contractor must work on the Employer's site without first being inducted and wearing the correct safety equipment.** It is the responsibility of the Contractor to make timely arrangements for safety induction with the Employer.
- q) The Contractor shall equip workers with the appropriate safety gear, tools and equipment unless specified that the Employer shall supply these or some of the items. The safety gear must be approved and the Employer reserves the right to reject substandard safety gear. The Contractor must immediately report to the Employer any accident or incident which may occur during his performance of the contract.
- r) The Contractor shall not burn items or keep explosives/inflammables material on site unless authorized by the Employer in writing. Any such authority shall not relieve the Contractor from any liability or obligation under this Contract and he shall be responsible for all his actions.
- s) The Contractor shall be responsible for disposal of all rubbish and waste from his/her work site. The work site must be kept neat and tidy at all times.
- t) The Contractor must ensure workers are fully fit and are not a health /safety risk to other site workers. No worker is allowed on site under the influence of alcohol or drugs. The Employer reserves the right to ban such workers from working any of the Employer's sites.

APPENDIX TO FORM OF TENDER

	Clause	
Amount of Security (if any)	10.1	Ten (10) percent of the Contract Price
Minimum amount of third party insurance (Insurance per occurrence, with the number of occurrences unlimited)	23.2	0.5% of the total contract sum
Time for issue of notice to commence	41.1	Seven (7) days
Time for Completion	43.1	Three (3) Calendar Weeks
Amount of Liquidated Damages	47.1	Kshs 2,000.00 per day
Defect Liability Period	49.1	Six (6) Months
Percentage of Retention	60.2	Ten percent (10%) of certified amount
Limit of Retention	60.2	Five percent (5%) of Tender Sum
Minimum Amount of Interim payment Certificates	60.2	One Million Kenya Shillings
Release of Retention Monies	60.2	On completion of defect liability period
Time within which payment is to be made after receipt of Invoices.	60.2	Ninety (90) days
No. of Certificates		2(Two)
Appointment of Arbitrator	67.1	Chairman of the Engineer's Registration Board
Initials of Signatory of Tender	

(Notes: Missing detail(s) in the list above shall be inserted before issue of Tender documents. Where a number of days are to be inserted, it is desirable, for consistency with the Conditions, that the number should be a multiple of seven.

CONTRACTOR CAPACITY

PLANT AND EQUIPMENT TO BE DEPLOYED TO THE WORKS

Item	Plant/Equipment	Registration No.	Ownership Status (tick)	
			Owned	Hired

TECHNICAL STAFF TO BE DEPLOYED TO THE WORKS

ITEM	NAME	ACADEMIC & TECHNICAL QUALIFICATIONS (Attach documents)

FORM OF AGREEMENT

This Agreement made the _____ day of _____ 2019

Between **TATA CHEMICALS MAGADI LTD** of **P.O BOX 1 – 00205 MAGADI** (hereinafter called “the Employer”) of the one part and

_____ of _____ (hereinafter called “the Contractor”) of the other part

Whereas the Employer is desirous that certain Works should be executed by the Contractor, viz **TATA CHEMICALS MAGADI 66/5.5 KV SUBSTATION ANNUAL MAINTENANCE** and has accepted a Tender by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement Witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of the Agreement, viz:
The Letter of Acceptance; The said Tender; The Conditions of Contract (Parts I and II); The Technical Specifications; The Drawings (if any); The Bill of Quantities; and Addendum (if any) issued by the Employer
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with their respective laws.

Signed Sealed and Delivered by the

Signature in the capacity of

duly authorized to sign tenders for and on behalf of **TATA CHEMICALS MAGADI LTD**

In the presence of

Signature

Signed Sealed and Delivered by the

Signature in the capacity of

duly authorized to sign tenders for and on behalf of
(NAME OF CONTRACTOR IN BLOCK LETTERS)

Witness

Signature

Address

PART B

CONDITIONS OF CONTRACT

General Conditions of Contract applicable in this contract shall be “The Conditions of Contract (International) for works of Mechanical engineering Latest Edition, published by the *Federation International Des Ingenieurs – Conseils* (FIDIC)”.

These conditions shall be read together with the “Conditions of Particular Application” stipulated hereafter

Conditions of Particular Application shall be as defined in this contract and all Purchasing and Procurement conditions of the Client.

Conditions contained in the Conditions of Particular Application shall be deemed to prevail in the event of any contradiction with a condition contained in the General Conditions of Contract.

CONDITIONS OF PARTICULAR APPLICATION OF THE CONTRACT

NOTE: The conditions of Particular Application listed hereinafter shall amend or supplement the appropriate Clauses in the General Conditions of Contract and where reference is made herein to specific Clauses or Sub-Clauses reference must also be made to these Clauses in the General Conditions. Where contradictions exist between these Conditions of Particular Application and the General Conditions of Contract Clauses, these Conditions shall prevail.

CLAUSE 1.1 : DEFINITIONS

- (i) Employer: TATA CHEMICALS MAGADI Ltd
P O Box 1, 00205
Magadi.
- (iv) Employer's Representative: Any technical person appointed by the Employer, and notified to the Contractor.
- Tenderer: Any individual, joint venture, or legal entity, tendering for the execution of the Works
- Successful Tenderer: The Tenderer whose Tender has been accepted by the Employer but still has not been assigned the execution of the Works.
- Material: Shall be all materials to be permanently incorporated into the Contract Works.

CLAUSE 14 : PROGRAMME TO BE SUBMITTED

(Supplement) Notwithstanding anything contained in this clause the Tenderer shall submit his detail programme within Seven (7) days of the date of acceptance of his tender.

CLAUSE 22 : INSURANCE OF WORKS, ETC

The contractor shall insure in the joint names of the Employer and the Contractor a against all loss or damage from whatever cause arising (other than the excepted risks) for which he is responsible under the terms of contract and in such a manner that the Employer and the Contractor are covered during the period of construction of the works and are also covered during the period of Maintenance for loss or damage arising from a cause occurring prior to the commencement of the Period of Maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with this obligations;-

- a) The works and the Temporary Works to the full value of such works executed from time to time.
- b) The materials, constructional plants and other things brought to the site by the contractor to the full value of such materials and other things.

CLAUSE 42 : POSSESSION OF SITE

Add the following:-

"The Employer shall provide right of access to the Site and the Contractor shall bear all expenses and charges for any additional rights of way required by him. The Contractor shall also provide at his own cost any additional accommodation required by him for the purposes of the Works".

CLAUSE 43 : TIME FOR COMPLETION

Add the following:-

The construction and completion of the works will be phased. Liquidated damages as provided for under Clause 48 (1) of the Conditions of Contract will be assessed and charged on the basis of delay caused to each phase.

CLAUSE 48 : CERTIFICATE OF COMPLETION OF WORKS

(Supplement) "Should the Employer wish to take over any portion of the works after completion of such portion and before completion of the whole works the Employer shall have the power to do so provided that the normal progress of the Works is not impeded or otherwise by agreement between the Contractor and the Employer's Representative.

In addition to the foregoing the Contractor shall comply with the stipulated periods for Sectional Completion of the Works.

CLAUSE 49: PERIOD OF MAINTENANCE

(Supplement) The period of Maintenance as defined shall be six (6) Calendar per months.

- (a) It should be noted that parts of completed Works may be commissioned for use by the public and /or other Contractors and staff on site. Pending the adoption of the work by the Employer the Contractor shall be liable for care and maintenance of works.
- (b) If the permanent reinstatement of such work is to be carried out by the Employer or by some person other than the Contractor or any Sub-Contractor to him the Contractor shall at his own cost and independently of any requirement of or notice from the Employer's Representative be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such Works and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises until the end of the period of Maintenance in respect of the works beneath such Works until the Employer or other period as aforesaid shall have taken possession of the Site for purpose of carrying out permanent reinstatement whichever is the earlier and shall indemnify, and save harmless the Employer against and from any damage or injury to the Employer to third parties arising out of or in consequences of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. As from the end of such Period of Maintenance or the taking of possession as aforesaid whichever shall first happen, the employer shall indemnify and save harmless the Contractor against and from any damage or injury as aforesaid arising out or in-consequences of or in connection with the said permanent reinstatement or any defect, imperfection or failure of or in such work of permanent reinstatement and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Where Employer or other person as aforesaid shall take possession of the Site as aforesaid in sections or lengths the responsibility of the Contractor under paragraph (a) of this Sub-Clause shall cease in regards to any such section or length at the time possession thereof into taken but shall during the continuance of the said Period of Maintenances continue in regard to any length of which possession has not been so taken and the indemnities given by the Contractor and the Employer respectively under the said paragraph shall be construed and have effect accordingly.

CLAUSE 60: CERTIFICATES AND PAYMENT

1. PAYMENT

- (a) The Contractor shall submit to the Employer's Representative after the end of assignment or completion of works for checking and certification of statement showing the estimated value of the permanent work executed up to the end of the works (if such value shall justify the issue of a final Certificate) of the Contractor will be paid at the end of the works, on the certificate of the Employer's Representative the amount due to him on account of the estimated value of permanent work executed up together with the cost of materials for permanent work delivered by the Contractor on the Site and approved by the Employer's Representative, and in addition such amount as the Employer's Representative may consider fair and reasonable for temporary works for which separate amounts, if any, are provided in the Bills of Quantities subject to a retention as specified in the Appendix to the Conditions on the full amount of payment.

Provided that no Interim Certificate shall be issued for a less sum than that named in the Tender at any one time.

- (b) The final release of all retention money shall become due and paid to the Contractor thirty (30) days after the completion of the "Maintenance Period" notwithstanding that at such time there may be outstanding claims by the Contractor against the Employer.

If at such time there shall remain to be executed by the Contractor any work ordered during such period pursuant to Clauses 49 or 50 hereof the employer shall be entitled to withhold payment until the completion of such works of so much of the retention money as shall in the opinion of Employer represent the cost of the works remaining to be executed. In the event of different maintenance periods having become applicable to different parts of the works pursuant to Clause 49 hereof the expression "expiration of the period of maintenance" shall for the purpose of this Sub-Clause be deemed to mean the expiration of the latest of such periods, notwithstanding that should the Employer's Representative decide that the Contractor has fulfilled all of his obligations under the part of the Contract which bears the shorter maintenance period then the Employer's Representative may decide to release a proportion of the retention money held upon expiration of this shorter maintenance period in an amount pro data to the cost of these works against the total cost of the works.

CORRECTION AND WITHHOLDING OF CERTIFICATE

- (c) The Employer's Representative may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and shall have power to withhold any certificate if the works or any part thereof is not being carried out to his satisfaction.

TIME OF PAYMENT

- (d) Payment upon each of the Employer's Representative's Certificates shall be made within Ninety (90) days after such Certificates have been signed by the Employer's Representative.

CLAUSE 68 : NOTICES

This clause is replaced by the followings:

- (1) The Contractor shall furnish the Employer with an address in Kenya and any notice to be given to the Contractor shall be served by sending the same to such address or by delivering the same to the Contractor's office or his Site office.
- (2) Any notice to be given to the Employer under the terms of the Contract shall be served by sending the same or leaving the same at the office of the Employer, Tata Chemicals Magadi Limited, or by delivering the same to a place approved by the Employer.

CLAUSE 70 : INCREASE OR DECREASE OF COSTS

- (1) The Contract Sum, and a subsequently added to or deducted from in accordance with provisions of this Contract, shall be deemed to have been calculated to include all duties on materials to be incorporated into the finished works. If at any time during the period of the Contract the duties shall be varied and in the opinion of the Employer's Representative this shall affect the cost to the Contractor of such materials, then the Employer's Representative after due consultation with the Employer, shall ascertain the net difference in cost of such materials. Any amount from time to time so ascertained shall be added to or deducted from the Contract Sum as the case may be. In the purpose of this clause, 'duties' shall include all customs and excise charges, tariffs, taxes and other duties imposed by statutory or other authority in the country where the Works are being carried out.

CLAUSE 72 : TAXES

Notwithstanding any relief from prescribed dues and charges including customs duties which may be allowed on Plant, materials or other things imported for the purpose of the Contract, the Contractor shall pay all prescribed dues and charges including customs duties on all such plant, material or other things which he disposes of in Kenya during the currency of this Contract or after termination thereof.

CLAUSE 73 : LAW

This Contract shall be construed in accordance with and is subjected to the Laws of the Republic of Kenya.

The Contractor shall comply with all Government Laws, Ordinances and Regulations, all Local Authority By-Laws and Regulations and Works. He shall pay all fees and give all notices required by the said Laws, or ordinance.

GIFTS, INDUCEMENTS AND REWARDS

- (a) The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor or any person employed by him or acting on his behalf (with or without the knowledge of the Contractor) shall have offered or given or agreed to give to any person any gift or consideration of any kind as an inducement or reward for doing, forbearing to do, or for having done or forborne to do any action in relation to obtaining or execution of the Contract.

(b) ADVERTISING AND NON-DISCLOSURE OF INFORMATION

The Contractor or his Representative shall not exhibit photographs of the Works or advertise the works without the prior approval of the Employer's Representative. In addition the Contractor or his Representative shall not disclose any information

concerning the works to any party or parties not connected with the Contract nor shall he or his Representatives issue press releases relating to the Works to any media.

(c) **RECOVERY OF SUMS DUE FROM CONTRACTOR**

When under the Contract any sum of money shall be recoverable from or payable by the Contractor the same may be deducted from any Sum then due or which any time thereafter may become due to the Contractor under the Contractor.

(d) **LANGUAGE**

The ruling language shall be in English.

PART C

SPECIFICATIONS

Technical Specifications for the works shall be “General electrical Engineering Specifications” The said Technical Specifications can be obtained from the Client’s Office at Lake Magadi

These Specifications shall be read together with the “Special Specification from the Employer” appended hereafter.

Specifications contained in the Special Specification shall be deemed to prevail in the event of any contradiction with the general technical specifications.

SPECIAL SPECIFICATIONS

1) Location of Works and Access to Site

The works to be undertaken within this contract is located in Tata Chemicals Magadi .

2) Scope and nature of Works

As attached in the BoQ and Tender document

3) Work Procedure

- i. The Contractor should submit a detailed program of works to the Engineer before commencement of the works.
- ii. For any shift working the contractor must ensure there is adequate professional supervision that will guarantee quality workmanship and safety of personnel.

4) Price, Measurement

- i. The Contractor rates are assumed to cover all preliminaries anticipated in the works including provision for client's safety requirements, site offices, workmen accommodation & transport and insurance cover. It fixing his rates, the contractor may wish to take note of a 3% withholding tax chargeable on each invoice submitted.
- ii. The rates quoted by the contractor shall be deemed to cover all costs of works as specified and/or as shown on the drawings, including the cost of delivery to site or other agreed place(s) and making good the site after the works.
- iii. Prices shall include for erection, labour, scaffolding and other erection equipment/plant necessary and covering the cost of additional requirements to properly execute the works to the satisfaction of the client.

5) Assessment of Contractors Personnel

- i. The Engineer will require the Contractor to submit a list of professional and sub-professional personnel to be employed on the site, stating their qualifications and experience. The Contractor shall notify the Engineer at least 14 days in advance on any key personnel transfer or replacement. No transfer of staff shall be effected unless the Engineer grants permission in writing authorizing such transfers or replacement.
- ii. The Engineer reserves the right to determine suitability of persons employed by the Contractor and may request replacement at any time of any members of Contractor's team if in the opinion of the Engineer; the presence of such a person is detrimental to the execution of the Contract. The Engineer shall give written notice to the Contractor stating his reasons substantiating the request for removal of such persons. The Engineer's decision shall be final and binding.

6) Plant and Equipment

If in the opinion of the Engineer the plant or equipment used by the Contractor for any specific item of work does not fulfill the requirements of the specification, in respect of workmanship, quality and safety of structures, such item of plant shall be replaced with the same or equivalent item to the satisfaction of the Engineer. No extra payment shall be made in respect of such replacement.

7) Notice of Operations

The Contractor shall from time to time supply to the Engineer in writing full information with respect to locations in which any material for the work is being prepared. Such general notices will enable arrangements for checking the works.

8) Working Hours

At the commencement of the Contract, the Contractor shall submit to the Engineer in writing the hours that shall be considered normal working hours. When approved, the working hours shall be maintained throughout the continuance of the Contract. Where the Contractor wishes to work outside these hours, he shall obtain written permission from the Engineer at least 24 hours in advance to enable the Engineer make a provision for proper inspection of the works.

9) Faulty Works

Any work that fails to comply with the specifications shall be rejected and the Contractor will at his expense make good any default as directed by and to the satisfaction of the Engineer.

10) Communication

- i. All instructions and communications relating to this contract shall flow from the Employer or a person to whom the Employer delegates the authority to issue such communication. Instruction given by the Employer shall be in writing, provided that if for any reason the Employer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Employer, whether before or after the carrying out of the instruction, shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 7 days, confirms in writing to the Employer any oral instruction of the Employer and such confirmation is not contradicted in writing within 7 days by the Employer, it shall be deemed to be an instruction of the Employer.
- ii. All communication to the Contractor will be directly to the Contractor or through a nominated contact person(s). The name(s) of the contact person(s) should be advised prior to awarding of the contract.
 - The Contractor's nominated person must be capable of communicating in both English and Kiswahili languages
 - There will be regular meetings between both parties to review the progress of the contract and address all issues outstanding. Each meeting must be properly documented in writing and circulated to both parties.
 - Inspection of the works/services being provided will be undertaken by the Employer in the presence of the Contractor at a time mutually agreed.

11) Payment Terms

- i. The basis for actual payment of any item shall be measured quantity of work actually done multiplied with the rate for the said item. Any variation from the original quantity on which the quotation was made which results in either an increase or decrease in the measured quantity of work as completed shall cause appropriate additions or deductions to the quotation.
- ii. Any written instructions from the Engineer that may result in additional work over and above that for which the Contractor quoted will be considered as extras and shall be paid for on the basis of measured additional quantity based on the prevail contract rate.
- iii. The Contractor shall be paid the agreed sum for services rendered provided the services have been completed to the satisfaction of the Employer. No payment will be made if the work has not been completed to the agreed standards.
- iv. The Contractor must submit his/her invoice against which the Employer shall effect payment. Payment will be made within thirty (30) days from the date of the invoice.
- v. No advance payment will be made and payment will only against an invoice submitted by the contractor on the basis of an agreed and signed payment certificate for work satisfactorily completed.

PREAMBLE TO SCHEDULE OF PRICES

1. General

A

- 1.1 The Schedules of prices are for the purpose of recording the rates and prices upon which the contract price is determined and are not to be taken as descriptive of the extent of Works to be executed or the extent of the Contractor's obligations.
- 1.2 The rates and prices in the schedule of prices shall be the full consideration for the Contractor's obligations under the Conditions of Contract. Specification and Drawings as reasonably could have been anticipated at the time of tender.
- 1.3 The rates and prices shall be deemed to include allowance for all the materials, equipment, labour, superintendence, services and all other things necessary to complete the Works, render them functional as intended, and remedy any defects therein, in accordance with the contract.
- 1.4 The contractor rates are assumed to cover any preliminaries anticipated in the works including provision for client's safety requirements, site offices, workmen accommodation & transport and insurance cover. It fixing his rates, the contractor may wish to take note of a 3% withholding tax chargeable on each invoice submitted.
- 1.5 The rates and prices in the Schedule of Price will be used for valuing the work executed and the Engineer will measure the whole of the Works executed in accordance with the Contract.

2. Completion of Schedule of Prices

- 2.1 The Schedule of prices shall be completed in conformity with Instructions to Tenders and clause 15 of the Preamble to Bills of Quantities above. Tenderers are advised to peruse and carefully consider the requirements of the Instructions to Tenders before making any entries in the Schedule of Prices.
- 2.2 The rates and prices inserted by the tenderer in the Schedule of Prices are to be the full inclusive costs of the Works, complete in place and in accordance with the Specifications and Drawings, including all costs and expenses for the construction of the works described, together with the costs of Contractor's Equipment and of any temporary installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the Contract is based.
- 2.3 No alternation shall be made to the Schedule of Prices and no extra item shall be inserted. The tenderer shall satisfy himself that the Tender Price arrived at and the pricing given is sufficient compensation for completing the whole of the works and remedying any defects therein in accordance with the Tender Documents.
- 2.4 The rates and prices entered by the tenderer shall be deemed to include for the cost of any price increases which may affect the works and which may occur during the validity of the Tender and any extended period of validity thereof, and during the execution of the Works.

PREAMBLE TO DAY WORK

The Client may if in his opinion, it is necessary or desirable, issue an instruction that any varied work shall be executed on a day work basis. The Contractor shall then be paid for such varied work under the terms set out in the day work schedule included in the Contract and at the rates and prices affixed thereto by him in the tender.

In respect of such works executed on a day work basis, the Contractor shall, during the continuance of such work, deliver each day to the Client or Client's Representative, an exact list in duplicate of names, occupation and time of all workmen employed on such work and a statement also in duplicate, showing all equipment used. Client or Client's Representative shall, on the copies of each list and statement, record in writing, signed by him, the extent to which he agrees with the accuracy thereof and return one copy to the Contractor.

The Contractor shall deliver to the Client a priced statement of the labour and equipment used and the Contractor shall not be entitled to any payment unless and until such statement has been properly rendered and supported by one copy of each of the signed lists and statements. Provided always that the Client considers that for any reason the sending of such lists or statement by the Contractor, in accordance with the foregoing provision, was impracticable he shall nevertheless be entitled to authorize payment for such work as day work on being satisfied as to the time employed and the labour deployed.

In the absence of a Day work Schedule, the Contractor shall be paid the aggregate of the gross remuneration of the workmen and of any foremen for the time they are actually engaged on the work concerned and the net cost of the materials actually used.

PREAMBLE TO BILLS OF QUANTITIES

1. The Contractor is required to check the numbers of the pages and should any be found to be missing or in duplicate or the figures or writing indistinct he must inform the Engineer at once and have the same rectified. Should the Contractor be in doubt about the precise meaning of any item, word or figure, for any reason whatsoever, or observe any apparent omission of words or figures, he must inform the Engineer in order that the correct meaning may be decided upon before the date for the submission of the Tender.
2. No liability whatever will be admitted nor claim allowed in respect of errors in the Contractor's Tender due to mistakes in the Bills of Quantities which should have been rectified in the manner described above.
3. These Bills are to be read and priced in conjunction with the Conditions of Contract, the Specification, the Drawings and Schedules.
4. The quantities set forth in the Bills of Quantities are believed to be approximately correct, and to represent substantially the work to be carried out, and are given for the purpose of enabling the Employer to compare Tenders on an equal basis.
5. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed, and the Engineer will re-measure the whole of the works executed in accordance with this contract.
6. The prices and rates inserted in the Bills of Quantities are to be the full inclusive values of the work described under the items, including all costs and expenses which may be required in and for the construction of the work described, together with any temporary works and installations which may be necessary, and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.
7. The brief description of the items given in the Bills of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the details descriptions given in the Conditions of Contract and Specification. When pricing items, reference is to be made to the Conditions of Contract, and Specifications for the full directions and description of work and materials.
8. A price or rate is to be inserted, in ink, against each item in the Bills of Quantities and Schedule of materials, whether quantities are stated or not, and if the Tender includes the cost of a particular item elsewhere in his rates or prices, he shall insert the word "Nil" against both the rate and extensions of that particular item. Should the Tenderer omit to price an item, then it will be assumed that he has included the cost of the item elsewhere in his rates or prices.
9. No alteration shall be made to the Bills of Quantities or Schedule of materials and no extra item shall be inserted. The Tenderer shall satisfy himself that the Tender sum arrived at by pricing and quantities and items given is sufficient compensation for constructing and maintaining the whole of the works in accordance with these contract documents.
10. The Bills of Quantities have been prepared generally in accordance with the Standard Method and Measurement – Institution of Civil Engineers (U.K) Variations have been made in some cases to suit local practice.
11. All quantities are measured net (unless otherwise stated) in accordance with the Drawings and no allowance has been made for cutting or waste. The Tenderer must allow in his rates accordingly.
12. Where other Contractors engaged by the employer are working in the same area, the Contractor shall give way and clearance as required and shall programme his work to give a minimum of interference to other contractors. Under these conditions the Contractor must ensure that such back-filling and

surplus soil as he is responsible for are kept rigidly separate from that of other Contractors also employed. The prices and rates given must include for compliance with this requirement.

13. The Contractor must note that materials should be ordered for the Contract from the working Drawings, checked where necessary from Site measurements. They may not be ordered from either the Bills of Quantities or the Tender Drawings. The contractor is solely responsible for accurate ordering of materials in accordance with the Drawings and no claim for any loss or expense will be entertained for orders for materials based upon the Bills of Quantities.
14. Metrication – All quantities are given in Metric Dimensions. However, where the changeover of production sizes has not yet taken place the Contractor may use equivalent goods manufactured to Imperial Dimensions at no extra cost to the Employer.
15. The Bills of quantities must be priced in Kenya currency, i.e. Shillings and Cents. All items in the Bills of Quantities MUST be priced and entered in “INK” against each item of work given. The word “NIL” is to be entered if no rate is required. Items not priced will be deemed to be included in other rates.
16. Definition of Abbreviation

Abbreviations used in the Bills of Quantities shall be interpreted as follows :-

“BS” Shall mean	the current British Standard Specification published by the British Standards Institution
“No.” shall mean	number
“Ditto” shall mean	the whole of the preceding description except as qualified in the section in which it occurs. Where it occurs in brackets it shall mean the whole of the preceding description which is contained within the appropriate brackets
“mm” shall mean	millimeter
“LM.” shall mean	linear metre
“SM” shall mean	square metre
“CM” shall mean	cubic metre
“n.l.t” shall mean	not less than
“n.e.” shall mean	not exceeding
“Kg” shall mean	kilogramme
“ha” shall mean	hectare
“EO” shall mean	extra over

PART D

BILLS OF QUANTITIES

JOB	UoM	QUANTITY	UNIT COST(lum)
16MVA, 66/5.5kV Power Station Transformer-Inspections, Repairs, Maintenance & Testing Scope	No.	1	
66kV Outdoor SF6 Circuit Breaker	No.	1	
66kV Outdoor Current Transformers - 6 Cores	No.	1	
66kV Outdoor Voltage Transformers - 6 cores	No.	1	
5.5kV Switchgear: Whipp and Bourne, Reyroll, Chint -	No.	15	
5.5kV Switchgear & Transformer Protection Relays: Whipp and Bourne, Reyroll, Chint	No.	38	
PAM TRANSFORMERS 2.5 Mva ONAN, 3 Mva ONAF, 1780 LTRS OIL CAPACITY(Pam transformer 1,2 & 3	No.	3	
SAM Plant TRANSFORMERS 1250 KVA 800 kg OIL CAPACITY(Factory feeder 1, Factory feeder 2, Grinding & Screening sections	No.	3	
SAM Plant ESP TRANSFORMERS 800 KVA 715 litres oil capacity, (ESP main transformer	No.	1	
SAM Plant ESP TRANSFORMERS 121.87 KVA step-up transformers (ESP Field transformers	No.	2	
SAM Plant ESP TRANSFORMERS 121.87 KVA step-up transformers (ESP Field transformers)	No.	2	
POWER STATION AND REPAIR SHOP TRANSFORMERS(500 kvA, 495 LTRS OIL & 315 kva, 475 LTRS OIL)	No.	2	

