

Transnet freight rail, a division of

TRANSNET SOC LTD

Registration Number 1990/000900/30 [hereinafter referred to as **Transnet**]

REQUEST FOR QUOTATION [RFQ] PN 52498

DESCRIPTION: THE REFURBISHMENT OF 5 (FIVE) 20MVA TRACTION

TRANSFORMERS SITUATED AT LESSEYTON-,

RRICKMORE-, DOHNE- AND LALISA SUBSTATIONS

LOCATION: EASTERN CAPE

SSUE DATE: 01 October 2013

CLOSING DATE: 05 November 2013

CLOSING TIME: 12:00



SCHEDULE OF DOCUMENTS

SECTION 1 : NOTICE TO BIDDERS PAGE 3 - 11

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SECTION 3 : STANDARD TERMS AND CONDITIONS PAGE 34 - 38

FOR THE SUPPLY OF GOODS OR SERVICES

TO TRANSNET

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Section 1

NOTICE TO BIDDERS

Quotations are requested from interested persons, companies, close corporations or enterprises (hereinafter referred to as the "**Respondent(s)**") to supply the above-mentioned requirement to Transnet.

On or after 02 October 2013 RFQ documents may be inspected at, and are obtainable from the Regional Supply Chain Office, 1st Floor, Room 105, Stow Road, Uitenhage.

Arrangements for the collection of the RFQ documents can be made with Me. Babalwa Myozolo on telephone number 041 – 994 2042 or email: Babalwa.myozolo@transnet.net

NB: No RFQ documents will be issued after the compulsory information triefing session and site visits.

No RFQ/tender fee is applicable and will be issued "FREE OF CHARGE" to all respondents.

A compulsory information briefing session and site visits will be conducted on 21 – 22 October 2013. Attendance is compulsory and <u>failure to attend</u> will disqualify submissions from evaluation. The compulsory information briefing session and site visits will be conducted over a period of 2 days, starting in East London and ending in Burgersdorp on 22 October 2013.

The compulsory information briefing session will start punctually at 08h00 and Respondents must please ensure that they arrive on time to prevent any delays.

Details of the compulsory information bridging session & site visits:

Date:

21 October 2013

Venue:

Transnet Freigh Rail

Infra Boardroom (2nd floor Floor)

1A Cambridge St. 2 t

East London

Time:

08h00

Immediately after the information briefing session, the Dohne substation near Stutterheim and Lesseyton substation near Queenstown will be visited.

(NB: All attendes to the abovementioned information briefing session will meet in Burge scorp at 08h00 on 22 October 2013 to continue with the site visits to the remaining substations

r directions, Mr. Evert Koffeman may be contacted on cell: 083 387 3615.

the above-mentioned session are to be used as an opportunity for the attendees to familiarise themselves with the scope of the requirements and furthermore for bidders to pose and for TFR to respond in terms of "questions and answers". It is hence required that prospective bidders are fully familiar with the entire tender pack <u>prior</u> to attending these sessions. All respondents are to provide their own transportation and accommodation to and from the abovementioned session and will be for their own expense. Transnet will not provide transport in any form.

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD:

Post and/or courier

CLOSING VENUE:

Postal Address:

Transnet Freight Rail

Secretariat of the Acquisition Council, Admin Support Office

Po Box 95 Uitenhage 6230

Physical Address:

Transnet Freight Rail

Secretariat of the Acquisition Councy Admin Support Office

Supply Chain Services Building

1st Floor Passage

Stow Road

Uitenhage

6229

NB: Quotations must be enclosed in a sealed envelope which must have inscribed on the outside:

RFQ No

: PTh, 52498

Description

furbishment of Transformers

Closing date and tine 305 November 2013 at 12h00

Closing address (N fer abovementioned options)

1 responses to RFQ

Pespenses to this RFQ [Quotations] must not include documents or reference relating to any other uotation or proposal. Any additional conditions must be embodied in an accompanying letter. The original signed RFQ will serve as the legal binding document and no copies will be accepted for evaluation purposes.

2 Broad-Based Black Economic Empowerment [B-BBEE]

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it would therefore prefer to do business with local business enterprises who share these same values. Transnet will accordingly allow a "preference" to companies who provide a valid B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

2.1 B-BBEE Scorecard and Rating

As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Respondents are to note the following:

- Proposals will be evaluated on price which will be allocated 80 or 90 points and preference which will be allocated 20 or 10 points, dependent on the value of the Services.
- The 80/20 preference point system applies where the acquisition of the Services will be less than R1 000 000.00.
- The 90/10 preference point system applies where the acquisition of the Services will exceed R1 000 000.00
- Proposals will be evaluated on the 80/20 and/or 90/10 preference point system depending on the value of the service as indicated/explained above.

In compliance with the Government Gazette No 34612, No ice No. 754 dated 23 September 2011, as from 1 October 2011 valid B-BBEE Verification Cartificates must be issued by:

- (i) Verification Agencies accredited by the South African National Accreditation System [SANAS]; or
- (ii) Registered Auditors approved by the Independent Regulatory Board of Auditors [**IRBA**], in accordance with the approval granted by the Department of Trade and Industry.

Enterprises will be rated by such agencies based on the following:

- a) Large Enterprises (e. annual turnover greater than R35 million):
 - Rating level basic an all seven elements of the B-BBEE scorecard
- b) **Qualifyin Small Interprises QSE** [i.e. annual turnover between R5 million and R35 million.
 - Rating based on any four of the elements of the B-BBEE scorecard
- c) Exempted Micro Enterprises EME [i.e. annual turnover less than R5 million]:
 - with an annual total revenue of R 5 million or less qualifies as an EME.
 - Automatic rating of B-BBEE Level 4 irrespective of race or ownership
 - Black ownership greater than 50% or Black Women ownership greater than 50% automatically qualify as B-BBEE Level 3

Sufficient evidence to qualify as an EME would be a certificate (which may be in the form of a letter) from an auditor or accounting officer or a certificate from a Verification Agency accredited by SANAS. The certificate must confirm the company's turnover, black ownership / black female ownership, B-BBEE status level and validity date.

Respondents are required to furnish proof of the above to Transnet. [i.e. a valid detailed scorecard as stipulated above in respect of Large Enterprises and QSEs, or a valid certificate in respect of EMEs]. Transnet will accordingly allocate a maximum of **20** [twenty] points to the Respondent's final score based on an entity's B-BBEE scorecard rating.

N.B. Failure to submit a B-BBEE certificate, which is valid as at the Closing Date of this RFP, will result in a score of zero being allocated for B-BBEE.

[Refer clause 17 below for Returnable Documents required]

3 Communication

- a) Respondents are warned that a response will be liable for disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer(s) or employee of Transnet in respect of this RFQ between the closing date and the date of the award of the business.
- b) A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name:

Granville van der Merwe

Email:

Granville.vandermerwe@transnet.net

c) Respondents may also, at any time after the closing date the RFQ, communicate with The Secretariat of the Acquisition Council, Admin Suppl Ronelle Blom, on any matter relating to its RFQ response:

Telephone

041 994 2045

Email

Ronelie.blom@tran

Tax Clearance

The Respondent's original valid x Clerance Certificate must accompany the Quotation. Failure to provide this document with the RFQ submission may result in disqualification.

5 **VAT Registration**

The valid VAT ratist tion dumber must be stated here: _

Legal Compliance

ssful Respondent shall be in full and complete compliance with any and all applicable national nd I cal laws and regulations.

changes to Quotations

Changes by the Respondent to its submission will not be considered after the closing date and time.

8 **Pricing**

All prices must be quoted in South African Rand on a fixed price basis, excluding VAT.

9 **Prices Subject to Confirmation**

Prices quoted which are subject to confirmation will not be considered.

10 Negotiations

Transnet reserves the right to undertake post-tender negotiations with selected Respondents or any number of short-listed Respondents.

11 Binding Offer

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

12 Disclaimers

Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that Transnet reserves the right to:

- modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
- reject any Quotation which does not conform to instructions and specifications which are detailed herein;
- disqualify Quotations submitted after the stated submission deadline
- not necessarily accept the lowest priced Quotation;
- reject all Quotations, if it so decides;
- place an order in connection with this Quotation at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier/Service Provider; or
- make no award at all.

In addition, Transnet reserves the right to exclude any Respondent from the bidding process who has
been convicted of a serious breach of law during the preceding 5 [five] years, including but not limited to
breaches of the Competition Act 89 of 1998. Respondents are required to indicate below whether or not
they have been found guilty or a serious breach of law during the past 5 [five] years:
I/We do hereby certify that I/we
have/have not been found guilty during the preceding 5 [five] years of a serious breach of law,
including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or
other administrative body. The type of breach that the Respondent is required to disclose excludes
relatively minor fences or misdemeanours, e.g. traffic offences.
Whateround guilty of such a serious breach, please disclose:
NATURE OF BREACH:
DATE OF BREACH:
Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Respondent

from the bidding process, should that person or entity have been found quilty of a serious breach of law,

tribunal or regulatory obligation.

13 Evaluation Criteria

Transnet will utilise the following criteria [not necessarily in this order] in choosing a Supplier/Service Provider, if so required:

- Phase 1: Administrative responsiveness Completeness of response and returnable documents
 Experience and Ability to perform the required work
- Phase 2: Weighted evaluation based on 80/20 or 90/10 preference point system:
 - Pricing and price basis [firm] whilst not the sole factor for consideration, competitive pricing and overall level of unconditional discounts¹ will be critical

Transnet will utilise the following formula in its evaluation of Price:

$$PS = 80 \left(1 - \frac{Pt - Pmin}{Pmin}\right) OR PS = 90 \left(1 - \frac{Pt - Pmin}{Pmin}\right) Where$$

Ps = Score for the Bid under consideration

Pt = Price of Bid under consideration

Pmin = Price of lowest acceptable Bid

- B-BBEE status of company

Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (10) 10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
	1	2
contributor	0	0

14 Vigin Period

ranshet d	desires a	a validity	period o	of 90	[ninety]	days	from	the	closing	date	of	this	RFQ
is RFQ is	s valid ι	until											

15 Banking Details

BANK:	
BRANCH NAME / CODE: _	
ACCOUNT HOLDER:	
ACCOUNT NUMBER:	

¹ Only unconditional discounts will be taken into account during evaluation. A discount which has been offered conditionally will, despite not being taken into account for evaluation purposes, be implemented when payment is effected.

	16	Company	Details
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Companies Trading Name				
Registration number of com	pany / C.C.			
Registered name of compan	y / C.C.			
Name of respondent				
Physical Address				
Respondents Contact Persor	n: Name			
	: Designation			
	; Tel No.			
	: Mobile No.			
	: Fax No.			
	: E-Mail		\$ *	
Service Provider for legal No	tices			
Fax No.				
Disclosure of Prices Quoted		4		
Respondents must indicate	here whether Th	nsn t may disclose the	ir quoted prices an	d conditions to
other Respondents:				
YES NO		•		

17 Returnable Documents

Returnable Documents means all the documents, Sections and Annexures, as listed in the tables below.

a) Respondents are required to submit with their Quotations the **Returnable Documents**, as detailed below

Vilure to provide all these Returnable Documents at the Closing Date and time of this RFQ lay result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these Documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent. Please confirm submission of these Returnable Documents by so indicating [Yes or No] in the table below:

Returnable Documents	Submitted [Yes or No]
SECTION 1 : Notice to Bidders	
- Valid B-BBEE Verification Certificate [RSA Large Enterprises and QSEs]	
Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the tender will result in an automatic score of zero being allocated for B-BBEE scorecard	
 Valid B-BBEE certificate from auditor, accounting officer or SANAS accredited Verification Agency [RSA EMEs] 	
Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the tender will result in an automatic score of zero being allocated for B-BBEE scorecard	
SECTION 2 : Quotation Form	
SECTION 3: Standard Terms and Conditions of Contract for the Supply of Goods or	
Services to Transnet	
SECTION 4: Background and Scope of Requirements	
SECTION 5 : Certificate of Attendance of RFQ Bricking ession	
ANNEXURE A : General Tender Conditions (CS 55 – Services)	
ANNEXURE B : E7/1 Specification for work on, over, under or adjacent to railway lines and	
near high voltage equipmen	
ANNEXURE C : Safety Arrangements and Procedural Compliance with the Occupational Health	
and safety Act; Act 85 or 1993 and regulations	
ANNEXURE D : Paintipe on feel Components of Electrical Equipment	
ANNEXURE E : Supplier C. de of Conduct	
ANNEXURE F RFQ 24 laration Form	
LETTER OF GCOD STANDING ISSUED BY COMPENSATION COMMISSIONER OR THE FEDERATED EMPLOY R'S MUNICAL ASSURANCE COMPANY LIMITED (FEM)	
ORI JIN L AX CLEARANCE CERTIFICATE	
PROOF OF THE APPRORIATE QUALIFICATIONS / EXPERIENCE NECESSARY FOR THIS TYPE OF WORK/OPERATION INCLUDING PREVIOUS REFERENCES	
DETAILED BREAKDOWN OF ALL LIFTING EQUIPMENT TO BE UTILISED FOR THE PROJECT	

Respondents to complete this section:

Respondent's contact person:	Name
	Designation Telephore
	Celi Prioge.
	Website

Section 2 QUOTATION FORM

I/We			
1 (10)			

hereby offer to supply the goods/services at the prices quoted in the Price Schedule below, in accordance with the conditions related thereto.

I/We agree to be bound by those terms and conditions in:

- the Standard Terms and Conditions for the Supply of Goods or Services to Transnet [available on request]; and
- any other standard or special conditions mentioned and/or embodied in this Request for Quotation.

I/We accept that unless Transnet should otherwise decide and so inform me/us, this Quotation [and, if any, its covering letter and any subsequent exchange of cores, extence], together with Transnet's acceptance thereof shall constitute a binding contract between Nammet and me/us.

I/We further agree that if, after I/we have been notified of the acceptance of my/our Quotation, I/we fail to deliver the said goods/service/s within the Jen ery lead-time quoted, Transnet may, without prejudice to any other legal remedy which it may have, ancel the order and recover from me/us any expenses incurred by Transnet in calling for Quotations a resh and/or having to accept any less favourable offer.

Price Schedule

(Pages 13 – 33 to be completed)

Notes to Pricing:

- a) All Prices in st bi quoted in South African Rand, exclusive of VAT
- b) To facilitate like for-like comparison bidders must submit pricing strictly in accordance with this price smedule and not utilise a different format. Deviation from this pricing schedule could result in a bid being disqualified.
- Please note that should you have offered a discounted price(s), Transnet will only consider such price discount(s) in the final evaluation stage if offered on an unconditional basis.
- d) A retention fee of 10% of the quoted price to be held for a period of 6 months, which will be released after final inspection.
- e) Labour rates per day to be inserted below:

Contra	ctor labour rates
Highly Skilled	
Skilled	
Semi Skilled	
Unskilled	

Respondent's Signature Date & Company Stamp

Lesseyton Refurbishment of a 132/25 kV, 20MVA Traction transformer Bill of quantities per transformer

A	The dismantling, of the transformer fins and conservator tank with all associated brackets	Price	Unit	Total
1	Close the main transformer valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (No leaks or spillage allowed and the container must be PCB free)			
2	Transformer fins; Remove the transformer cooling fins with all attachments and support brackets if applicable, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Blank off the main transformer valves with a suitable blanking plates to ensure that no oil leaks from the main tank may occur. (The transformer dimensions and weight is attached.)			
3	Specify the hydraulic crane lifting capacity at various reach distances. (Test certificates)	7		
4	Remove the oil conservator tank with attachments, assembly and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks			

В	Loading and off loading of the transformer fins and conservator tank with all associated brackets on site, and at the factory.	Price	Unit	Total
1	Load the cooling fins, the cooling fins must be properly stacked and se ure, bolted together "Sandwich type arrangement" in easy manageable stacks. (Not more thank fins per stack) to ensure that no damage to the fins will occur during transport. Suitable polts with washers to be used on fin brackets for this purpose. Close the oil entry openings to keep moisture out.			
2	Specify the transport vehicle loading restrictions weight and square neter loading area and the hydraulic crane lifting capacity at various reach distances. (Test particularly)			
3	Loading of the oil conservator tank, with attachments assembly and support brackets on the truck. Ensure that all the valves and taps are properly closed. The tanks and support brackets must be properly secured to the truck before traspertation.			

	C	Transport of the transforme	(a)	ite to the factory and back to the site.	Price	Unit	Total
L	1	Transport to the factory					
	2	Transport to the site				·	

D	on former Core and Core windings	Price	Unit	Total
1	Drain the oil from the a water main tank into a suitable container PCB free.			
2	Remove the high and near novoltage bushing, care must be taken not to damage the CT's inside the main tank stack and shings neatly at an angle of 45°			
3	Remove the caresformer tank main lid to allow the contractor and TFR staff to inspect the tap change, core, eare winding insulation and all exposed mechanical and electrical connections.			
4	Remove any foreign objects, repair any insulation or contactor damage, re-torque the core bolts to the correct torque settings ofN.m. Repair all burnt or damage contacts, insulation damage, faulty terminations and faulty connections.			
5	Re-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.			
6	During the mentioned process the transformer must be fitted with a suitable cover which will prevent dust, rain and any impurities from entering into the tank.			
7	Megger test the core insulation immediately after the cleaning and repair process			
8	Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the studs to fit the old and new bushings if required.			
9	Replace all gaskets, seals and fill the main tank with oil, vacuum of the main tank to be maintained at the correct vacuum of 5Torr			
10	Supply and fit new core/earth insulator on the outside of the main tank ,with new gaskets and cone rubber seal.			

E	The measurement and protection equipment	Price	Unit	Total
1	Completely refurbish the mentioned equipment, oil and winding temperature probes and pockets			
2	Repair all leaks to the Bucholtz relay including the test valve and sight glass gaskets.			
3	Service and secure all control/protection - wiring/terminations inside the main tank before closing.			
4	Service transformer termination box ensure no loose connections or oil leaks			

F	Transformer cooling fins x 10	Price	Unit	Total
1	Completely refurbish all the cooling fins, attachment brackets, gaskets "type TF72", drain plugs, valves, O rings washers and seals			
2	The transformer cooling fins and support brackets, spot remove all rust/ corrosion areas plus an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4.	11		
3	The complete outside of the cooling fins and all attachment brackets must be must be lightly sanded to remove old lose/flake paint and corrosion, be degreased and be painted according to specification CEE 0045.90. (two coats)	1		
4	Clean the inside of each fin to ensure that no carbon, sludge or any other impurities are trap, ed inside the fins, which might contaminate the new oil. (Air blast and rinse with clean oil)			
5	All the cooling fins must be pressure tested to ensure that no leakage of the oil vill occ r. TFR staff to be present.			
6	Replace all the transformer cooling fin spacer bolts and nuts with her din galvanised bolts and nut of similar material and dimensions.			

G	Transformer main tan (Price	Unit	Total
į	Completely refurbish the transformer main tank with a associate equipment, pipes and attachments, drain valves, plugs, washers, O-rings, uskets, temperature control box, Bucholtz pipes and temperature probes.			
2	The outside of the transformer main tank and at attachment brackets, U bolts, bolts and nuts, spot repair remove all rust/corrosion, (weld, so let weld,) plus an additional 30mm of the existing paint around the effected arcs, decrease check for surface damage clean and paint one coat NS4 red colour.			
3	The outside of the transformer main tank, must be sanded to remove loose paint, be degreased, and be painted according to specification CEE 0045.90. Painting of steel component of electrical equipment (Two coats)			
4	All the gaskets must be replaced with type TF72 of same thickness. Size 10mm gasket on the main lid. The stop and rain valves, drain plugs, washers and O-rings must be replaced. Fit new dowty washer to drain page on all the fins.			
5	Allow for the reparent of all broken or missing bolts and nuts as well as the bushing studs (16mm)			
6	Degrease and dean the transformer main tank plinth and paint 2 coats noxide.			

Н	Transformer conservator oil tank	Price	Unit	Total
1	Completely refurbish the transformer conservator tank with all pipes, attachment brackets (knee brace and conservator supports), do spot repairs on all rust/corrosion areas, (weld, sealed weld) plus remove an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4 red colour. Fit new knee brace and conservator tank support bolts and nuts, new gaskets. Repair rust and place gasket 6mm type 72 between the conservator mounting brackets.			
2	The outside of the transformer conservator tank, and all attachment brackets must be sanded down, degreased and be painted according to specification CEE 0045.90 . (one coat) white NOXIDE.			
3	The conservator tank must be pressure tested to ensure that no leakage of the oil will occur.			
4	The inside of the conservator tank must be sandblasted and clean and be painted with gliptol or be replace with a 3CR12 S/Steel tank			

Sub Total B

i =	All the gaskets must be replaced with type TF72 and all the stop valves and washers, O rings be refurbish or replaced.		
6	Supply and install new site glasses and site glass housings where required.		
7	Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)	- Control of the Cont	
8	Replace breather and breather pipe with support brackets		

1
1

J	Reassemble the transformer on site	rice	Unit	Total
1	Fit the conservator tank with support brackets and new gaskets complete			
2	Fit the cooling fins to the main transformer complete with gaskets and torque all bolt and now to specification employing standard torque settings.			
4	Fit new oil cooling fin support brackets (Contractor to provide design to TFR for approval), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load.			
	Fit the existing 132kV bushings and new 25kV bushings. Bushings will be supplied by TFR.			
6	Fill the transformer with the existing oil, Test certificates to be in de available. Oil must be PCB free (Sticker from test laboratories to certify the transformer is PoB, ee, less than 2.5ppm @ 20° Celsius. Allow for top-up oil.			
7	Check all gaskets, valve, stop cocks for oil leaks an repair on site			
8	Filter complete transformer 3 passes minimum to meet required standards and specifications			
9	Performed final test and energise: Winding resistance, Ratio, Insulation and oil,			
10	Clean site from any redundant party oil still ge etc (TFR to witness all test)			

No	Site establishment	Price	Unit	Total
1	Provide filter plant (PC, fr. e)		<u> </u>	
2	Provide general relant			
3	Provide moon crass lift oil cooling fins and main tank lid () ton			
	Provide H. dr. diseacks to raise the main transformer tank			
5	Pro (de r serv ir (PCB free)			
6	Transport Cost			
7	Accommodation Cost		<u> </u>	
8	P & G's			
9				

Safety cost SHE plan Price Unit Total

1 Compile Safety File; Written safe working statement for each process:
Remove and assemble of the transformer cooling fins.
Remove and assemble of the transformer conservator tank and attachment brackets.
Remove and assemble of the transformer 132kV and 25kV Bushings
Remove and refit of the transformer main lid
The raise and lowering of the transformer main tank

2 Compile a risk assessment on:
Possible fire, causes, probability, estimate damage prevention, action plan

	Date & Company Stamp
Respondent's Signature	Date & company stamp

	oil Pollution, Causes, probability, estimate cleanup cost, prevention, action plan		
— <u>-</u>	ifting equipment failure, Cause of failure, Probability, Estimate damage, prevention and action		
- 1	lan		
(P	ligh Voltage shock, causes, probability, estimated cost, prevention and action plan		
T	evel crossings accidents, causes, probability, estimated cost, prevention, action plan		
┵	cever crossings accidents, eauses, probability, commercially		
-			
2 F	all protection plan when working on transformer and removing part of the transformer		
3 F	an protection plan when working on transformer and temporary		
4 5	Safety training;	1	
	Responsible person in charge		
	rirst aid number		
	Certified operators		
	Centrica operators		
5 (Certification		
	Letters of appointment		
	Letters of competency		
	Letter of good standing with the claims commissioner	Ĭ	
	Tax clearance certificate		
	Qualified drivers and plant operators (Certificates)		
	Letter of medical fitness on staff		
	Least of models futtor of the		
3	Site instruction book and Site Diary		
3	Site instruction book and one only		<u> </u>
	Main Toy I A & B		

	Specify any additional recommended work or test	Price	Unit	Total
NO	Specify any additional recommended work of test			
1				
2				
3			 	
4				
5			++	
6			++	
7				
	Additional option cost outside tender scope		L	

Carrickmore A

Refurbishment of a 132/25 kV, 20MVA Traction transformer

Bill	of	quantities	per	transformer
------	----	------------	-----	-------------

A	The dismantling, of the transformer fins and conservator tank with all associated brackets	Price	Unit	Total
,	Close the main transformer valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (No leaks or spillage allowed and the container must be PCB free)		W	
2	Transformer fins; Remove the transformer cooling fins with all attachments and support brackets if applicable, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Blank off the main transformer valves with a suitable blanking plates to ensure that no oil leaks from the main tank may occur. (The transformer dimensions and weight is attached.)			
3	Specify the hydraulic crane lifting capacity at various reach distances. (Test certificates)			
4	Remove the oil conservator tank with attachments, assembly and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks			

В	Loading and off loading of the transformer fins and conservator tank with at as oct ted brackets on site, and at the factory.	Price	Unit	Total
1	Load the cooling fins, the cooling fins must be properly stacked and secure, belted ogether "Sandwich type arrangement" in easy manageable stacks. (Not more than 5 fins per stack) to ensure that no damage to the fins will occur during transport. Suitable both with washers to be used on fin brackets for this purpose. Close the oil entry openings a keep moisure out.			
2	Specify the transport vehicle loading restrictions weight an (square meer loading area and the hydraulic crane lifting capacity at various reach distances. (That certificates).			
3	Loading of the oil conservator tank, with attachment, assembly and support brackets on the truck. Ensure that all the valves and taps are properly losed. The tanks and support brackets must be properly secured to the truck before transfortation.			

Γ	C	Transport of the transformer		h site to the factory and back to the site.	Price	Unit	Total
Г	1	Transport to the factory					
	2	Transport to the site	X				

D	Transformer Core and Core windings	Price	Unit	Total
1	Drain the oil from the transformer main tank into a suitable container PCB free.			
2	Remove the high and medium coltage bushing, care must be taken not to damage the CT's inside the main tank, stack he bushings neatly at an angle of 45°			
3	Remove the transformer tank main lid to allow the contractor and TFR staff to inspect the tap changer, ore core winding insulation and all exposed mechanical and electrical connections.			
4	Remove any foreign objects, repair any insulation or contactor damage, re-torque the core bolts to the correct torque settings ofN.m. Repair all burnt or damage contacts, insulation damage, faulty terminations and faulty connections.			
5	Re-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.			
6	During the mentioned process the transformer must be fitted with a suitable cover which will prevent dust, rain and any impurities from entering into the tank.			
7	Megger test the core insulation immediately after the cleaning and repair process			
8	Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the studs to fit the old and new bushings if required.			
9	Replace all gaskets, seals and fill the main tank with oil, vacuum of the main tank to be maintained at the correct vacuum of 5Torr			
10	Supply and fit new core/earth insulator on the outside of the main tank, with new gaskets and cone rubber seal.			

Date & Company Stamp Respondent's Signature

E	The measurement and protection equipment	Price	Unit	Total
I	Completely refurbish the mentioned equipment, oil and winding temperature probes and pockets			
2	Repair all leaks to the Bucholtz relay including the test valve and sight glass gaskets.			
3	Service and secure all control/protection - wiring/terminations inside the main tank before closing.			
4	Service transformer termination box ensure no loose connections or oil leaks			

F	Transformer cooling fins x 10	Price	Unit	Total
1	Completely refurbish all the cooling fins, attachment brackets, gaskets "type TF72", drain plugs, valves, O rings washers and seals			
2	The transformer cooling fins and support brackets, spot remove all rust/ corrosion areas plus an additional 30mm of the existing paint around the effected area, degreese check for surface damage clean and paint one coat NS4.	111		
3	The complete outside of the cooling fins and all attachment brackets must be must be lightly sanded to remove old lose/flake paint and corrosion, be degreased and be painted according to specification CEE 0045.90. (two coats)	1		
4	Clean the inside of each fin to ensure that no carbon, sludge or any other impurities are trapled inside the fins, which might contaminate the new oil. (Air blast and rinse with clean oil)			
5	All the cooling fins must be pressure tested to ensure that no leakage of the oil vill occ r. TFR staff to be present.			,
6	Replace all the transformer cooling fin spacer bolts and nuts with hot dip galvanised bolts and nut of similar material and dimensions.			

	Transformer main tan	Price	Unit	Total
	Completely refurbish the transformer main tank pain a associate equipment, pipes and attachments, drain valves, plugs, washers, O-rings, askets, temperature control box, Bucholtz pipes and temperature probes.			
2	The outside of the transformer main tank and a lattachment brackets, U bolts, bolts and nuts, spot repair remove all rust/corrosion, (weld scaled weld) plus an additional 30mm of the existing paint around the effected area, degree se check for surface damage clean and paint one coat NS4 red colour.			
3	The outside of the transformer hain tank a fust be sanded to remove loose paint, be degreased, and be painted according to specification CEE 0045.90. Painting of steel component of electrical continuous (Two coats).			
4	All the gaskets must be replace, with type TF72 of same thickness. Size 10mm gasket on the main lid. The stop are grain valves, drain plugs, washers and O-rings must be replaced. Fit new downty washer to Grain by as on all the fins.			
5	Allow form replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)			
6	Degrease and clean the transformer main tank plinth and paint 2 coats noxide.			

н	Transformer conservator oil tank	Price	Unit	Total
	Completely refurbish the transformer conservator tank with all pipes, attachment brackets (knee brace and conservator supports), do spot repairs on all rust/corrosion areas, (weld, sealed weld) plus remove an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4 red colour. Fit new knee brace and conservator tank support bolts and nuts, new gaskets. Repair rust and place gasket 6mm type 72 between the conservator mounting brackets.			
2	The outside of the transformer conservator tank, and all attachment brackets must be sanded down, degreased and be painted according to specification CEE 0045.90. (one coat) white NOXIDE.			
3	The conservator tank must be pressure tested to ensure that no leakage of the oil will occur. The inside of the conservator tank must be sandblasted and clean and be painted with gliptol or			
4	be replace with a 3CR12 S/Steel tank			

	Date & Company Stamp
1 11 Chambers	

	All the gaskets must be replaced with type TF72 and all the stop valves and washers, O rings be refurbish or replaced.		
	Supply and install new site glasses and site glass housings where required.		
7	Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)		
8	Replace breather and breather pipe with support brackets		

1	Transformer oil and testing	Price	Unit	Total
1	The transformer oil drained from the main tank and fins must be cleaned via a vacuum filter process to ensure the removal of all dissolved gasses and impurities, Minimum dielectric strength must be at least 65kV with a water content of less than 10ppm at° C. No direct contact between the oil and heater elements will be allowed. Supply detailed filter process to be utilized and oil test specifications e.g. temperature, vacuum, type of filter cartridges, and different oil test to be performed "Specify". Contractor to supply own oil and generator plant.	41		

J	Reassemble the transformer on site	ce Unit	Total
1	Fit the conservator tank with support brackets and new gaskets complete		
	Fit the cooling fins to the main transformer complete with gaskets and torque all bolts and nuts to specification employing standard torque settings.		
4	Fit new oil cooling fin support brackets (Contractor to provide design to TFR for approval) hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load.		
	Fit the existing 132kV bushings and new 25kV bushings. Bushings with applied by TFR.		
6	Fill the transformer with the existing oil, Test certificates to be make ay llable. Oil must be PCB free (Sticker from test laboratories to certify the transformer is 100 free less than 2.5ppm @ 20° Celsius. Allow for top-up oil.		
7	Check all gaskets, valve, stop cocks for oil leaks and repair on the		
8	Filter complete transformer 3 passes minimum to meet required standards and specifications		
9	Performed final test and energise: Winding resistance, Ratio, Insulation and oil,		
10	Clean site from any redundant parts, oil shillage etc. FFR to witness all test)		
	Sub Total A	L	

No	Site establishment		Price	Unit	Total
1	Provide filter plant (PC) free				
2	Provide generator clant				
3	Provide mobile grant to lift oil cooling fins and main tank lid (Provide Hye auli liacks to raise the main transformer tank) ton			
	Provide Hye auli jacks to raise the main transformer tank			 	
5	Provider ess vo (PCB free)				
6	Tracspox Cost				
7	Accommodation Cost				
8	P & G's				
9					
	Sub Total B			L	

Safety cost SHE plan	Price	Unit	Total
1 Compile Safety File; Written safe working statement for each process:			
Remove and assemble of the transformer cooling fins.			
Remove and assemble of the transformer conservator tank and attachment brackets.			
Remove and assemble of the transformer 132kV and 25kV Bushings			
Remove and refit of the transformer main lid			
The raise and lowering of the transformer main tank			
2 Compile a risk assessment on:			
Possible fire, causes, probability, estimate damage prevention, action plan			

Safety training; Responsible person in charge First aid number Certified operators Certification Letters of appointment Letters of competency Letter of good standing with the claims commissioner Tax clearance certificate Qualified drivers and plant operators (Certificates) Letter of medical fitness on staff Site instruction book and Site Diary	C L	oil Pollution, Causes, probability, estimate cleanup cost, prevention, action plan			
Lifting equipment failure, Cause of failure, Probability, Estimate damage, prevention and action plan High Voltage shock, causes, probability, estimated cost, prevention and action plan Level crossings accidents, causes, probability, estimated cost, prevention, action plan Fall protection plan when working on transformer and removing part of the transformer Safety training; Responsible person in charge First aid number Certified operators Certified operators Certified operators Letters of appointment Letters of competency Letter of good standing with the claims commissioner Tax clearance certificate Qualified drivers and plant operators (Certificates) Letter of medical fitness on staff Site instruction book and Site Diary	L	The Contract of the Contract o			
plan High Voltage shock, causes, probability, estimated cost, prevention and action plan Level crossings accidents, causes, probability, estimated cost, prevention, action plan Fall protection plan when working on transformer and removing part of the transformer Safety training: Responsible person in charge First aid number Certified operators Certified operators Certification Letters of appointment Letters of competency Letter of good standing with the claims commissioner Tax clearance certificate Qualified drivers and plant operators (Certificates) Letter of medical fitness on staff Site instruction book and Site Diary	1	ifting equipment failure, Cause of failure, Probability, Estimate damage, prevention and action		j	
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	Price	Unit	Total
Specify any additional recommended work or test		 	
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Additional option cost outside tender scope		L	

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Respondent's Signature	

Carrickmore B

Refurbishment of a 132/25 kV, 20MVA Traction transformer Bill of quantities per transformer

A	The dismantling, of the transformer fins and conservator tank with all associated brackets	Price	Unit	Total	
1	Close the main transformer valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (No leaks or spillage allowed and the container must be PCB free)				
2	Transformer fins; Remove the transformer cooling fins with all attachments and support brackets if applicable, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Blank off the main transformer valves with a suitable blanking plates to ensure that no oil leaks from the main tank may occur. (The transformer dimensions and weight is attached.)				
3	Specify the hydraulic crane lifting capacity at various reach distances. (Test certificates)				
4	Remove the oil conservator tank with attachments, assembly and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks				

В	Loading and off loading of the transformer fins and conservator tank with all a so lated brackets on site, and at the factory.	Price	Unit	Total
I	Load the cooling fins, the cooling fins must be properly stacked and occure, edge together "Sandwich type arrangement" in easy manageable stacks. (Not more than 5 fins per stack) to ensure that no damage to the fins will occur during transport. Suitable book with washers to be used on fin brackets for this purpose. Close the oil entry opening to keep moisture out.			
2	Specify the transport vehicle loading restrictions weight and square meter loading area and the hydraulic crane lifting capacity at various reach distances. (Lest conficates).			
3	Loading of the oil conservator tank, with attachments, assembly and support brackets on the truck. Ensure that all the valves and taps are properly seed. The tanks and support brackets must be properly secured to the truck before transportation.			

Γ	С	Transport of the tra	nsfor	fro.	e site to the factory and back to the site.	Price	Unit	Total
ſ	1	Transport to the factory			•			
ſ	2	Transport to the site					<u> </u>	

D	T ansformer Core and Core windings	Price	Unit	Total
1	Drain the oil from the transformer main tank into a suitable container PCB free.			
2	Remove the high and hedgen voltage bushing, care must be taken not to damage the CT's inside the main tank, state the bushings neatly at an angle of 45°			
3	Remove the transformer tank main lid to allow the contractor and TFR staff to inspect the tap changer, color core winding insulation and all exposed mechanical and electrical connections.			
4	Remove any foreign objects, repair any insulation or contactor damage, re-torque the core bolts to the correct torque settings ofN.m. Repair all burnt or damage contacts, insulation damage, faulty terminations and faulty connections.			
5	Re-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.			
6	During the mentioned process the transformer must be fitted with a suitable cover which will prevent dust, rain and any impurities from entering into the tank.			
7	Megger test the core insulation immediately after the cleaning and repair process			
8	Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the studs to fit the old and new bushings if required.			
9	Replace all gaskets, seals and fill the main tank with oil, vacuum of the main tank to be maintained at the correct vacuum of 5Torr			
10	Supply and fit new core/earth insulator on the outside of the main tank ,with new gaskets and cone rubber seal.			

E	The measurement and protection equipment	Price	Unit	Total
1	Completely refurbish the mentioned equipment, oil and winding temperature probes and pockets			
2	Repair all leaks to the Bucholtz relay including the test valve and sight glass gaskets.			
3	Service and secure all control/protection - wiring/terminations inside the main tank before closing.			
4	Service transformer termination box ensure no loose connections or oil leaks			

F	Transformer cooling fins x 10	Price	Unit	Total
1	Completely refurbish all the cooling fins, attachment brackets, gaskets "type TF72", drain plugs, valves, O rings washers and seals			
2	The transformer cooling fins and support brackets, spot remove all rust/ corrosion areas plus an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4.	11		
3	The complete outside of the cooling fins and all attachment brackets must be must be lightly sanded to remove old lose/flake paint and corrosion, be degreased and be painted according to specification CEE 0045.90. (two coats)	1		
4	Clean the inside of each fin to ensure that no carbon, sludge or any other impurities are trape inside the fins, which might contaminate the new oil. (Air blast and rinse with clean of the contaminate the new oil.)			
5	All the cooling fins must be pressure tested to ensure that no leakage of the oil will occur. TFR staff to be present.			
6	Replace all the transformer cooling fin spacer bolts and nuts with hot digalvanised bolts and nut of similar material and dimensions.			

G	Transformer main tank	Price	Unit	Total
1	Completely refurbish the transformer main tank with all associate equipment, pipes and attachments, drain valves, plugs, washers, O-rings, gaskets, temperature control box, Bucholtz pipes and temperature probes.			
2	The outside of the transformer main tank and all attachment brackets, U bolts, bolts and nuts, spot repair remove all rust/corrosion, (webs, sea ed weld ,) plus an additional 30mm of the existing paint around the effected area, legit ase check for surface damage clean and paint one coat NS4 red colour.			
3	The outside of the transformer half ank, must be sanded to remove loose paint, be degreased, and be painted according to specification CEE 0045.90. Painting of steel component of electrical equipment (Two coats)			
4	All the gaskets must be repliced with type TF72 of same thickness. Size 10mm gasket on the main lid. The stop and drain valves, drain plugs, washers and O-rings must be replaced. Fit new dowty washers a grain plug, on all the fins.			
5	Allow for the hip beneat of all broken or missing bolts and nuts as well as the bushing studs (16mm)			
6	Degrease and clean the transformer main tank plinth and paint 2 coats noxide.			

Н	Transformer conservator oil tank	Price	Unit	Total
1	Completely refurbish the transformer conservator tank with all pipes, attachment brackets (knee brace and conservator supports), do spot repairs on all rust/corrosion areas, (weld, sealed weld) plus remove an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4 red colour. Fit new knee brace and conservator tank support bolts and nuts, new gaskets. Repair rust and place gasket 6mm type 72 between the conservator mounting brackets.			
2	The outside of the transformer conservator tank, and all attachment brackets must be sanded down, degreased and be painted according to specification CEE 0045.90 . (one coat) white NOXIDE.			
3	The conservator tank must be pressure tested to ensure that no leakage of the oil will occur.			
4	The inside of the conservator tank must be sandblasted and clean and be painted with gliptol or be replace with a 3CR12 S/Steel tank			

5	All the gaskets must be replaced with type TF72 and all the stop valves and washers, O rings be refurbish or replaced.		
6	Supply and install new site glasses and site glass housings where required.		
	Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs		
,	(16mm)		
	Replace breather and breather pipe with support brackets		- !

I	Transformer oil and testing	Price	Unit	Total
1	The transformer oil drained from the main tank and fins must be cleaned via a vacuum filter process to ensure the removal of all dissolved gasses and impurities, Minimum dielectric strength must be at least 65kV with a water content of less than 10ppm at° C. No direct contact between the oil and heater elements will be allowed. Supply detailed filter process to be utilized and oil test specifications e.g. temperature, vacuum, type of filter cartridges, and different oil test to be performed "Specify". Contractor to supply own oil and generator plant.			

J	Reassemble the transformer on site	Price	Unit	Total
1	Fit the conservator tank with support brackets and new gaskets complete			
2	Fit the cooling fins to the main transformer complete with gaskets and torque all bolts and hots a specification employing standard torque settings.			
4	Fit new oil cooling fin support brackets (Contractor to provide design to TFR or apport), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tens in rods to ensure even distribution of the load.	,		
	Fit the existing 132kV bushings and new 25kV bushings. Bushings 132kV supplied by TFR.			
6	Fill the transformer with the existing oil, Test certificates to be finade, vailable. Oil must be PCB free (Sticker from test laboratories to certify the transformer lat. Sb. ree, less than 2.5ppm @ 20° Celsius. Allow for top-up oil.			
7	Check all gaskets, valve, stop cocks for oil leaks and repair to sit			
8	Filter complete transformer 3 passes minimum to meet required standards and specifications			
9	Performed final test and energise: Winding esistence, Ratio, Insulation and oil,			
10	Clean site from any redundant parts, of spill ge (TFR to witness all test)			
	Sub Total A			

No	Site establishment	Price	Unit	Total
1	Provide filter plant (CSB file)			
2	Provide generat a plant			
3	Provide mobile charge to left oil cooling fins and main tank lid () to Provide K dray lie jacks to raise the main transformer tank	n		
	Provide K dray lic jacks to raise the main transformer tank			
5	Providence oir (PCB free)			
6	Transport Cost			
7	Accomme lation Cost			
8	P & G's			
9				
	Sub Total B			

Safety cost SHE plan	Price	Unit	Total
1 Compile Safety File; Written safe working statement for each process:			
Remove and assemble of the transformer cooling fins.			
Remove and assemble of the transformer conservator tank and attachment brackets.			
Remove and assemble of the transformer 132kV and 25kV Bushings			
Remove and refit of the transformer main lid			
The raise and lowering of the transformer main tank			
2 Compile a risk assessment on:			
Possible fire, causes, probability, estimate damage prevention, action plan			

No	Specity any additional recommended work or test	Price	Unit	Total
l				
2				
3				
4				
5				
6				
7				
	Additional option cost outside tender scope			

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Refurbishment of a 132/25 kV, 20MVA Traction transformer Bill of quantities per transformer

A	The dismantling, of the transformer fins and conservator tank with all associated brackets	Price	Unit	Total
1	Close the main transformer valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (No leaks or spillage allowed and the container must be PCB free)			
2	Transformer fins; Remove the transformer cooling fins with all attachments and support brackets if applicable, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Blank off the main transformer valves with a suitable blanking plates to ensure that no oil leaks from the main tank may occur. (The transformer dimensions and weight is attached.)		The state of the s	
3	Specify the hydraulic crane lifting capacity at various reach distances. (Test certificates)	111		
4	Remove the oil conservator tank with attachments, assembly and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks			

В	Loading and off loading of the transformer fins and conservator tank with an sseriated brackets on site, and at the factory.	Price	Unit	Total
1	Load the cooling fins, the cooling fins must be properly stacked and secure, holter together "Sandwich type arrangement" in easy manageable stacks. (Not more than 5 fins per stack) to ensure that no damage to the fins will occur during transport. Suitable heats with washers to be used on fin brackets for this purpose. Close the oil entry opening to beep measure out.			
2	Specify the transport vehicle loading restrictions weight and square peter loading area and the hydraulic crane lifting capacity at various reach distances. Test ce liftcates).			
3	Loading of the oil conservator tank, with attachments, assembly and support brackets on the truck. Ensure that all the valves and taps are properly closed. The tanks and support brackets must be properly secured to the truck before transportation.			

C	Transport of the transform	167 17	n he	to the factory and back to the site.	Price	Unit	Total
1	Transport to the factory						
2	Transport to the site						

D	Transt rmer Core and Core windings	Price	Unit	Total
Į	Drain the oil from the transformer main tank into a suitable container PCB free.			
2	Remove the high and redium voltage bushing, care must be taken not to damage the CT's inside the main tank stack they ashings neatly at an angle of 45°			
3	Remove the transformer tank main lid to allow the contractor and TFR staff to inspect the tap changer, one, core winding insulation and all exposed mechanical and electrical connections.			
4	Remove any foreign objects, repair any insulation or contactor damage, re-torque the core bolts to the correct torque settings ofN.m. Repair all burnt or damage contacts, insulation damage, faulty terminations and faulty connections.			
5	Re-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.			
6	During the mentioned process the transformer must be fitted with a suitable cover which will prevent dust, rain and any impurities from entering into the tank.			
7	Megger test the core insulation immediately after the cleaning and repair process			
8	Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the studs to fit the old and new bushings if required.			
9	Replace all gaskets, seals and fill the main tank with oil, vacuum of the main tank to be maintained at the correct vacuum of 5Toπ			
10	Supply and fit new core/earth insulator on the outside of the main tank, with new gaskets and cone rubber seal.			

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E	The measurement and protection equipment	Price	Unit	Total
1	Completely refurbish the mentioned equipment, oil and winding temperature probes and pockets			
2	Repair all leaks to the Bucholtz relay including the test valve and sight glass gaskets.			
3	Service and secure all control/protection - wiring/terminations inside the main tank before closing.			
4	Service transformer termination box ensure no loose connections or oil leaks			

F	Transformer cooling fins x 10	Price	Unit	Total
1	Completely refurbish all the cooling fins, attachment brackets, gaskets "type TF72", drain plugs, valves, O rings washers and seals			
2	The transformer cooling fins and support brackets, spot remove all rust/ corrosion areas plus an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4.	. 1		
3	The complete outside of the cooling fins and all attachment brackets must be lightly sanded to remove old lose/flake paint and corrosion, be degreased and be painted according to specification CEE 0045.90. (two coats)			
4	Clean the inside of each fin to ensure that no carbon, sludge or any other impurities are happed inside the fins, which might contaminate the new oil. (Air blast and rinse with clean to			
5	All the cooling fins must be pressure tested to ensure that no leakage of the of will occur. TFR staff to be present.			
6	Replace all the transformer cooling fin spacer bolts and nuts with hot do galvanised bolts and nut of similar material and dimensions.			

G		Transformer main tark	Ргісе	Unit	Total
1		former main tank with all ass ciate equipment, pipes ar washers, O-rings, gaskets, corperature control box, Buchol			
2	spot repair remove all rust/corro	nain tank and all attachment brackets, U bolts, bolts and nut sion, (we'd selfed weld ,) plus an additional 30mm of the d area degrease, beck for surface damage clean and paint or	ne		
3		an ank, must be sanded to remove loose paint, be degrease fical, p CEE 0045.90. Painting of steel component of electric			
4		with type TF72 of same thickness. Size 10mm gasket on the es, drain plugs, washers and O-rings must be replaced. Fit ne all the fins.	1		
5	Allow for the rep) cement of all (16mm)	broken or missing bolts and nuts as well as the bushing stud	ds		
6	De rease and clean the transform	er main tank plinth and paint 2 coats noxide.			

Н	Transformer conservator oil tank	Price	Unit	Total
1	Completely refurbish the transformer conservator tank with all pipes, attachment brackets (knee brace and conservator supports), do spot repairs on all rust/corrosion areas, (weld, sealed weld) plus remove an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4 red colour. Fit new knee brace and conservator tank support bolts and nuts, new gaskets. Repair rust and place gasket 6mm type 72 between the conservator mounting brackets.			
2	The outside of the transformer conservator tank, and all attachment brackets must be sanded down, degreased and be painted according to specification CEE 0045.90. (one coat) white NOXIDE.			
3	The conservator tank must be pressure tested to ensure that no leakage of the oil will occur.			
4	The inside of the conservator tank must be sandblasted and clean and be painted with gliptol or be replace with a 3CR12 S/Steel tank			

	All the gaskets must be replaced with type TF72 and all the stop valves and washers, O rings be refurbish or replaced.		
6	Supply and install new site glasses and site glass housings where required.		
7	Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)		
8	Replace breather and breather pipe with support brackets		

I	Transformer oil and testing	Price	Unit	Total
1	The transformer oil drained from the main tank and fins must be cleaned via a vacuum filter process to ensure the removal of all dissolved gasses and impurities, Minimum dielectric strength must be at least 65kV with a water content of less than 10ppm at° C. No direct contact between the oil and heater elements will be allowed. Supply detailed filter process to be utilized and oil test specifications e.g. temperature, vacuum, type of filter cartridges, and different oil test to be performed "Specify". Contractor to supply own oil and generator plant.	1		

Fit the conservator tank with support brackets and new gaskets complete			
Fit the conservator tank with support brackets and new gaskets complete			
Fit the cooling fins to the main transformer complete with gaskets and torque all bolts and ne is to specification employing standard torque settings.			
Fit new oil cooling fin support brackets (Contractor to provide design to TFR for approval), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load.			
Fit the existing 132kV bushings and new 25kV bushings. Bushings will be supplied by TFR.			
Fill the transformer with the existing oil, Test certificates to be mode a lailable. Oil must be PCB free (Sticker from test laboratories to certify the transformer in PCB free, less than 2.5ppm @ 20° Celsius. Allow for top-up oil.			
Check all gaskets, valve, stop cocks for oil leaks and cpair of site			
Filter complete transformer 3 passes minimum to meet required standards and specifications			
Performed final test and energise: Winding esist nee, Ratio, Insulation and oil,		<u> </u>	
Clean site from any redundant parts, oil will be (TFR to witness all test)			
	specification employing standard torque settings. Fit new oil cooling fin support brackets (Contractor to provide design to TFR for approval), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load. Fit the existing 132kV bushings and new 25kV bushings. Bushings will be supplied by TFR. Fill the transformer with the existing oil, Test certificates to be in ide a ailable. Oil must be PCB free (Sticker from test laboratories to certify the transformer is PCB (see, less than 2.5ppm @ 20° Celsius. Allow for top-up oil. Check all gaskets, valve, stop cocks for oil leaks and copair of site. Filter complete transformer 3 passes minimum to meet required standards and specifications. Performed final test and energise: Winding existence, Ratio, Insulation and oil,	Specification employing standard torque settings. Fit new oil cooling fin support brackets (Contractor to provide design to TFR for app eval), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load. Fit the existing 132kV bushings and new 25kV bushings. Bushings will be supplied by TFR. Fill the transformer with the existing oil, Test certificates to be not de available. Oil must be PCB free (Sticker from test laboratories to certify the transformer in PCB, i.e., less than 2.5ppm @ 20° Celsius. Allow for top-up oil. Check all gaskets, valve, stop cocks for oil leaks and expair on site. Filter complete transformer 3 passes minimum to meet required standards and specifications. Performed final test and energise: Winding exist nee, Ratio, Insulation and oil, Clean site from any redundant parts, oil spillage of (TFR to witness all test)	Specification employing standard torque settings. Fit new oil cooling fin support brackets (Contractor to provide design to TFR for app eval), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tension rods to ensure even distribution of the load. Fit the existing 132kV bushings and new 25kV bushings. Bushings well be supplied by TFR. Fill the transformer with the existing oil, Test certificates to be mode available. Oil must be PCB free (Sticker from test laboratories to certify the transformer is PCB (e.e., less than 2.5ppm @ 20°) Celsius. Allow for top-up oil. Check all gaskets, valve, stop cocks for oil leaks and spair of site. Filter complete transformer 3 passes minimum to meet required standards and specifications. Performed final test and energise: Winding existence, Ratio, Insulation and oil, Clean site from any redundant parts, oil spillage of (TFR to witness all test)

No	Sie establishment		Price	Unit	Total
i	Provide filter plant (PSB fre.)				
2	Provide generator plant				
3	I TOVIGO MIDDE CIAL COMPANIE THIS CARE THE TITLE OF THE CONTROLLED TO THE CONTROLLED THE CONTROL	ion			
	Provide He frau c jace to raise the main transformer tank				
5	Providence ir (PCB free)			- -	
6	Transport Cost			 	
7	Accommo ation Cost			<u> </u>	
8	P & G's				
9					
	Sub Total B			L	

Safety cost SHE plan	Price	Unit	Total
1 Compile Safety File; Written safe working statement for each process:			
Remove and assemble of the transformer cooling fins.			
Remove and assemble of the transformer conservator tank and attachment brackets.			
Remove and assemble of the transformer 132kV and 25kV Bushings			
Remove and refit of the transformer main lid		<u> </u>	
The raise and lowering of the transformer main tank		 	
2 Compile a risk assessment on:		+	
Possible fire, causes, probability, estimate damage prevention, action plan			

	Oil Pollution, Causes, probability, estimate cleanup cost, prevention, action plan			
	Lifting equipment failure, Cause of failure, Probability, Estimate damage, prevention and action			····
	plan			
	High Voltage shock, causes, probability, estimated cost, prevention and action plan			
	Level crossings accidents, causes, probability, estimated cost, prevention, action plan			
3	Fall protection plan when working on transformer and removing part of the transformer			
4	Safety training;			
	Responsible person in charge			
	First aid number			
	Certified operators			
5	Certification			
	Letters of appointment			
	Letters of competency		ĺ	
	Letter of good standing with the claims commissioner			
	Tax clearance certificate			
	Qualified drivers and plant operators (Certificates)			
	Letter of medical fitness on staff			
3	Site instruction book and Site Diary			
<u> </u>	Site motivation book and site site.			
			L	
	Main Total A & B		1	
	Iviain 10tal 2 day		Į	
			· · · · · ·	
No	Specify any additional recommended work or test	Price	Unit	Total
	+ · · · · · · · · · · · · · · · · · · ·			

No	Specify any a Iditional recommended work or test	Price	Unit	Total
1	<u> </u>			
2				
3				
4				
5				
6				
7				
	Additional option cost outside tender scope			

Respondent's Signature	Date & Company Stamp

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Refurbishment of a 132/25 kV, 20MVA Traction transformer Bill of quantities per transformer

A	The dismantling, of the transformer fins and conservator tank with all associated brackets	Price	Unit	Total
1	Close the main transformer valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (No leaks or spillage allowed and the container must be PCB free)			
2	Transformer fins; Remove the transformer cooling fins with all attachments and support brackets if applicable, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Blank off the main transformer valves with a suitable blanking plates to ensure that no oil leaks from the main tank may occur. (The transformer dimensions and weight is attached.)			
3	Specify the hydraulic crane lifting capacity at various reach distances. (Test certificates)	111		
4	Remove the oil conservator tank with attachments, assembly and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks			

В	Loading and off loading of the transformer fins and conservator tank with the sociated brackets on site, and at the factory.	Price	Unit	Total
1	Load the cooling fins, the cooling fins must be properly stacked and secure, olted ogether "Sandwich type arrangement" in easy manageable stacks. (Not more than 5 fins per stack) to ensure that no damage to the fins will occur during transport. Suitable holts with washers to be used on fin brackets for this purpose. Close the oil entry openings to keep more sture out.			
2	Specify the transport vehicle loading restrictions weight and square meter loading area and the hydraulic crane lifting capacity at various reach distances (lest cert ficates).			
3	Loading of the oil conservator tank, with attachments, assemely and support brackets on the truck. Ensure that all the valves and taps are properly close. The tanks and support brackets must be properly secured to the truck before transportation.			.179

Γ	C	Transport of the transformer of	71	e s	il.	to the factory and back to the site.	Price	Unit	Total
T	1	Transport to the factory		A					
ľ	2	Transport to the site		<u> </u>			L	J	1

D	Transformer Core and Core windings	Price	Unit	Total
1	Drain the oil from the transform, main tank into a suitable container PCB free.			
2	Remove the high and hediup voltage bushing, care must be taken not to damage the CT's inside the main tank, stac the wishings neatly at an angle of 45°			
3	Remove the transfermer tank main lid to allow the contractor and TFR staff to inspect the tap changer converge winding insulation and all exposed mechanical and electrical connections.			
4	Remove any foreign objects, repair any insulation or contactor damage, re-torque the core bolts to the correct torque settings ofN.m. Repair all burnt or damage contacts, insulation damage, faulty terminations and faulty connections.			
5	Re-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.			
6	During the mentioned process the transformer must be fitted with a suitable cover which will prevent dust, rain and any impurities from entering into the tank.			
7	Megger test the core insulation immediately after the cleaning and repair process			
8	Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the study to fit the old and new bushings if required.			
9	Replace all gaskets, seals and fill the main tank with oil, vacuum of the main tank to be maintained at the correct vacuum of 5Torr			
10	Supply and fit new core/earth insulator on the outside of the main tank ,with new gaskets and cone rubber seal.			

E	The measurement and protection equipment	Price	Unit	Total
1	Completely refurbish the mentioned equipment, oil and winding temperature probes and pockets			
2	Repair all leaks to the Bucholtz relay including the test valve and sight glass gaskets.			
3	Service and secure all control/protection - wiring/terminations inside the main tank before closing.			
- 4	Complete transformer termination have anounce no loops connections or all looks			

F	Transformer cooling fins x 10	Price	Unit	Total
1	Completely refurbish all the cooling fins, attachment brackets, gaskets "type TF72", drain plugs, valves, O rings washers and seals			
2	The transformer cooling fins and support brackets, spot remove all rust/ corrosion areas plus an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4.	1		
3	The complete outside of the cooling fins and all attachment brackets must be must be lightly sanded to remove old lose/flake paint and corrosion, be degreased and be painted according to specification CEE 0045.90. (two coats)	1		
4	Clean the inside of each fin to ensure that no carbon, sludge or any other impurities are trapped inside the fins, which might contaminate the new oil. (Air blast and rinse with clean of			
5	All the cooling fins must be pressure tested to ensure that no leakage of the oil vill occ r. YFR staff to be present.			
6	Replace all the transformer cooling fin spacer bolts and nuts with hot dip galvanised bolts and nut of similar material and dimensions.			

G	Transformer main tank	Price	Unit	Total
1	Completely refurbish the transformer main tank with at associate equipment, pipes and attachments, drain valves, plugs, washers, O-rings, giskets, to perature control box, Bucholtz pipes and temperature probes.			
2	The outside of the transformer main tank and all attachment brackets, U bolts, bolts and nuts, spot repair remove all rust/corrosion, (welco scaled weld) plus an additional 30mm of the existing paint around the effected area, degreese ellick for surface damage clean and paint one coat NS4 red colour.			
3	The outside of the transformer main tak, must be sanded to remove loose paint, be degreased, and be painted according to specification CLE 0045.90. Painting of steel component of electrical equipment (Two coats)			
4	All the gaskets must be replaced with type TF72 of same thickness. Size 10mm gasket on the main lid. The stop an odre in valves, drain plugs, washers and O-rings must be replaced. Fit new dowty washers to bain, lugs on all the fins.			
5	Allow for the placement of all broken or missing bolts and nuts as well as the bushing studs (16mm)			
6	Degrasse and tean the transformer main tank plinth and paint 2 coats noxide.			

Н	Transformer conservator oil tank	Price	Unit	Total
***	Completely refurbish the transformer conservator tank with all pipes, attachment brackets (knee brace and conservator supports), do spot repairs on all rust/corrosion areas, (weld, sealed weld) plus remove an additional 30mm of the existing paint around the effected area, degrease check for surface damage clean and paint one coat NS4 red colour. Fit new knee brace and conservator tank support bolts and nuts, new gaskets. Repair rust and place gasket 6mm type 72 between the conservator mounting brackets.			
2	The outside of the transformer conservator tank, and all attachment brackets must be sanded down, degreased and be painted according to specification CEE 0045.90. (one coat) white NOXIDE.			
3	The conservator tank must be pressure tested to ensure that no leakage of the oil will occur.			
4	The inside of the conservator tank must be sandblasted and clean and be painted with gliptol or be replace with a 3CR12 S/Steel tank			

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5	All the gaskets must be replaced with type TF72 and all the stop valves and washers, O rings be refurbish or replaced.
6	Supply and install new site glasses and site glass housings where required.
7	Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)
8	Replace breather and breather pipe with support brackets

I	Transformer oil and testing	Price	Unit	Total
1	The transformer oil drained from the main tank and fins must be cleaned via a vacuum filter process to ensure the removal of all dissolved gasses and impurities, Minimum dielectric strength must be at least 65kV with a water content of less than 10ppm at° C. No direct contact between the oil and heater elements will be allowed. Supply detailed filter process to be utilized and oil test specifications e.g. temperature, vacuum, type of filter cartridges, and different oil test to be performed "Specify". Contractor to supply own oil and generator plant.			

J	Reassemble the transformer on site	Nice	Unit	Total
1	Fit the conservator tank with support brackets and new gaskets complete			
2	Fit the cooling fins to the main transformer complete with gaskets and torque all bolts and torque specification employing standard torque settings.			
4	Fit new oil cooling fin support brackets (Contractor to provide design to TFR or apply var), hot dip galvanised and paint as per specification CEE 0045.90. (two coats). Tensio rods to ensure even distribution of the load.			
	Fit the existing 132kV bushings and new 25kV bushings. Bushing will be upplied by TFR.			
6	Fill the transformer with the existing oil, Test certificates to be male available. Oil must be PCB free (Sticker from test laboratories to certify the transformer is PCR five, less than 2.5ppm @ 20° Celsius. Allow for top-up oil.			
7	Check all gaskets, valve, stop cocks for oil leaks and repair on site			
8	Filter complete transformer 3 passes minimum o meet required standards and specifications			****
9	Performed final test and energise: Winding es, ta ce, Ratio, Insulation and oil,			
10	Clean site from any redundant parts, il sp. lla, e etc (TFR to witness all test)		1	

No	Site establishment	Price	Unit	Total
1	Provide filter plant PCL Se			
2	Provide generate what			
3	Provide moline tran to aft oil cooling fins and main tank lid () ton			
	Provide Hy ray incks to raise the main transformer tank			
5	Provi e reservo (PCB free)			
6	Transpo. Cost			
7	Accommodation Cost			
8	P & G's			
9				
,	Sub Total B	,		

Safety cost SHE plan	Price	Unit	Total
1 Compile Safety File; Written safe working statement for each process:			
Remove and assemble of the transformer cooling fins.			
Remove and assemble of the transformer conservator tank and attachment brackets.			
Remove and assemble of the transformer 132kV and 25kV Bushings			•
Remove and refit of the transformer main lid			
The raise and lowering of the transformer main tank			
Compile a risk assessment on:			
Possible fire, causes, probability, estimate damage prevention, action plan			

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Date	CX	Company	Jugnip

Oil Pollution, Causes, probability, estimate cleanup cost, prevention, action plan Lifting equipment failure, Cause of failure, Probability, Estimate damage, prevention and action plan High Voltage shock, causes, probability, estimated cost, prevention and action plan Level crossings accidents, causes, probability, estimated cost, prevention, action plan	
plan High Voltage shock, causes, probability, estimated cost, prevention and action plan	
High Voltage shock, causes, probability, estimated cost, prevention and action plan	
processing sections, entering, entering, entering section, gravitation, gravitation	
Fall protection plan when working on transformer and removing part of the transformer	
4 Safety training;	
Responsible person in charge	
First aid number	
Certified operators	
5 Certification	
Letters of appointment	
Letters of competency	
Letter of good standing with the claims commissioner	
Tax clearance certificate	
Qualified drivers and plant operators (Certificates)	
Letter of medical fitness on staff	
3 Site instruction book and Site Diary	
	LI CONTROL OF
Main Total A & B	

Main Total A & B

No	Specify by Maitional recommended work or test	Price	Unit	Total
1				
2				
3			<u> </u>	
4				
5				
6				
7			<u> </u>	
	Additional option cost outside tender scope			

Respondent's Signature	Date & Company Stamp

carrying or	as business	under the style and	i title of	·		
5 (five) tı	ansformers	ke and complete the and in accordance roject Specification	e with the terms	set in this Requ		
R	(in words)		4		
I/We under and particu	rtake to comp lar specificati	e work: plete the work for t ions from the date f any discrepancy, t	the ural on of the	the acceptance	ecified in the spec of my/our tender.	
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Section 3

STANDARD TERMS AND CONDITIONS FOR THE SUPPLY OF GOODS OR SERVICES TO TRANSNET

A Supplier shall be obliged to adhere to the Standard Terms and Conditions for the Supply of Goods and Services to Transnet as expressed hereunder. Should the Respondent find any condition(s) unacceptable, it should indicate which condition(s) is/are unacceptable and offer an alternative(s). A Quotation submitted by a Respondent will be subjected to review and acceptance or rejection of its proposed contractual terms and conditions by Transnet's Legal Counsel, prior to consideration for an award of business.

1 **SOLE AGREEMENT**

Unless otherwise agreed in writing, these terms [Terms and each Term] and Terms and each Term and Terms purchase order(s) [Order or Orders] represent the only conditions upon which Transnet SOL Ltd [Transnet] procures goods or services specified in the Order [collectively, the Products] from the pason to whom the Order is addressed [the Supplier]. Transnet does not accept any other conditions which the Supplier may specify, unless otherwise agreed to by Transnet in writing. In the event onsistency between these Terms and any Order, these Terms shall take precedence.

2 **CONFORMITY WITH ORDER**

Supplier shall not vary the quantities specified and/or Products shall conform strictly with the Order. the specification, if any, stipulated in the Order, it out the prior written consent of Transnet. The Supplier warrants that the Products shall be fit for heir purpose and of satisfactory quality.

3 **DELIVERY AND TITLE**

- The delivery dates and addresses are those in the Order. Time shall be of the essence in respect of the Supplier's obligations er the Order.
- The Supplier of the excused for delay in delivery or performance except due to circumstances 3.2 ntround then only subject to the Supplier having notified Transnet in writing on war of such circumstances. Transnet may terminate an Order, in whole or in part, chout incorring any liability to the Supplier if such a delay becomes, in Transnet's absolute pin in Jignificant.
- Risk of loss or damage to Products shall pass to Transnet on delivery, and title shall pass to Transnet when payment to the Supplier for the Products has been effected.
- If on delivery, the Products do not conform to the Order, Transnet may reject the Products and the 3.4 Supplier shall promptly rectify any defects or in Transnet's opinion, supply appropriate replacement Products at the Supplier's expense within the specified delivery times, without any liability due by Transnet. Products shall be subject to such testing and/or inspection as Transnet may consider necessary.

PRICE AND PAYMENT

4.1 Prices specified in an Order cannot be increased. Payment for the Products shall be made by Transnet against an original undisputed invoice(s) [a Tax Invoice], supporting documentation and month-end statement from the Supplier. Tax Invoices plus supporting documentation shall be posted to the address shown in the Order.

4.2 Payment of the Supplier's valid Tax Invoice(s) will be made by Transnet in the South African currency and on the terms stated in the Order, the standard payment terms being 30 [thirty] days from date of receipt by Transnet of a month-end statement, unless otherwise agreed to in writing. Transnet shall arrange for payment of such Tax Invoices and any pre-authorised additional expenses incurred, provided that the authorised expenses are supported by acceptable documentary proof of expenditure incurred [where this is available]. Any amounts due in terms of these Terms shall be paid to the Supplier, taking into account any deduction or set-off and bank charges.

5 PROPRIETARY RIGHTS LIABILITY

If any allegations should be made or any claim asserted against Transnet that ownership of, or any act or omission by Transnet in relation to Products or any written material provided to Transnet relating to any Products or pursuant to an Order being a violation or infringement of any third party's contractual, industrial, commercial or intellectual property rights including but not united to any patent, registered design, design right, trade mark, copyright or service mark on any application thereof, the Supplier hereby indemnifies Transnet against and hold it harmless from any and all losses, liabilities, costs, claims, damages and expenses [including any legal fees] arising directly or indirectly from such allegation or claim provided that this indemnity shall not apply where the alregation or claim arises solely as a result of the Supplier following a design or process originate that furnished by Transnet. The Supplier shall either

- a) procure for Transnet the right to concaue sing the infringing Products; or
- b) modify or replace the Products sath they become non-infringing,

provided that in both cases the Products shall continue to meet Transnet's requirements and any specifications stipulated in the Order. Should neither option be possible, the Supplier may remove, with Transnet's prior written consent, such Products and will pay to Transnet a sum equivalent to the purchase price. If Transnet infuses to give such consent, the Supplier shall have no liability in respect of any continued use of the infringing Products after Supplier's prior written request to remove the same.

6 PROPILETY Y INFORMATION

An internation which Transnet has divulged or may divulge to the Supplier and any information relating to mannet's business which may have come into the Supplier's possession whilst carrying out an Order, and the existence of the Order, shall be treated by the Supplier as confidential information and shall not, without Transnet's prior written consent, be disclosed to any third party, or be used or copied for any purposes other than to perform the Order. This clause does not apply to information which is public knowledge or available from other sources other than by breach of this Term. Upon request by Transnet, the Supplier shall return all materials issued pursuant to the Order and, pending this, shall protect Transnet's rights in any such materials. Such confidential information shall at all material times be the property of Transnet.

7 DEVELOPMENT WORK IN THE PRODUCTION OF PRODUCTS

If the production or provision of any Products involves research and/or development which is wholly or partly funded by Transnet, then all intellectual property or other rights as a result thereof shall be the property of Transnet on creation.

8 PUBLICITY

The Supplier shall not name Transnet or use its trademarks, service marks [whether registered or not] or Products in connection with any publicity without Transnet's prior written consent.

9 AFTER SALES SERVICE

The Supplier shall provide replacement parts necessary to ensure the uninterrupted operation of the Products supplied for the duration of the warranty period, from delivery of any particular item of the Products and if requested by Transnet shall make these parts available to a third party maintainer of Transnet's choice at the same price as if the parts had been supplied to Transnet. The Supplier undertakes to provide a maintenance service for Products, should Transnet so request, on terms to be agreed. If the Order so indicates, the Supplier will provide a warranty service for the Products at a level to be agreed with Transnet.

10 TERMINATION OF ORDER

- Transnet may cancel an Order in whole or in part a any time upon at least 7 [seven] days' written notice to the Supplier, or when there is a change in control of the Supplier or the Supplier commits any serious breach or any repeated or continued material breach of its obligations under these Terms and/or Order or shall lave been guilty of conduct tending to bring itself into disrepute, on written notice to the Supplier when such work on the Order shall stop.
- Transnet shall pay the Supplier of air and reasonable price for justified work in progress, where such price reflects only these costs not otherwise recoverable by the Supplier, at the time of termination, and the Supplier shall give Transnet full assistance to check the extent of such work in progress. Payment or such price shall be in full and final satisfaction of any claims arising out of such termination and upon such payment the Supplier shall deliver to Transnet all work, including any claterials, completed or in progress. The sum payable to the Supplier under this clause will not in any event exceed the total amount that would have been payable to the Supplier by the order not been terminated.
- 10.3 of the event of termination the Supplier must submit all claims within 2 [two] months of termination after which time claims will only be met in what Transnet considers exceptional circumstances.
- If the Products are not provided in accordance with an Order, the Order shall be deemed terminated and the Supplier shall compensate Transnet for any costs incurred in obtaining substitute Products or any damage caused due to the failure or delay in the delivery.

11 ACCESS

The Supplier shall be liable for the acts, omissions and defaults of its personnel or agents who, for the purposes of the Order, shall be treated as if they are the Supplier's employees. The Supplier shall ensure that any such personnel or agents, whilst on Transnet's premises, shall comply with Transnet's health and safety, security and system security rules and procedures as and where required.

12 WARRANTY

The Supplier warrants that it is competent to supply the Products in accordance with these Terms to the reasonable satisfaction of Transnet and that all Products delivered under the Order: (a) conform and comply in all relevant legislation, standards, directives and orders related to [inter alia] the supply, manufacture and use of the Products in force at the time of delivery, and to any specifications referred to in the Order; (b) will not cause any deterioration in the functionality of any Transnet equipment; and (c) do not infringe any third party rights of any kind. The Supplier hereby indemnifies Transnet against all losses, liabilities, costs, claims, damages, expenses and awards of any kinds incurred or made against Transnet in connection with any breach of this warranty.

13 INSOLVENCY

If the Supplier shall have a receiver, manager, administrator, liquidator or like person appointed over all or any part of its assets or if the Supplier compounds with its creditors or personal resolution for the writing up or administration of the Supplier, Transnet is at liberty to terminate the Order or Orders forthwith, or at its option, to seek performance by any such appointed person.

14 ASSIGNMENT

The Supplier shall not assign its obligations under a Order without Transnet's prior written consent, which consent shall not be unreasonably withheld or deved.

15 NOTICES

Notices under these Terms shall be delivered by hand to the relevant addresses of the parties in the Order or may be served by facsimile or by email, in which event notice shall be deemed served on acknowledgement of receipt by the recipient.

16 LAW

Orders shall be givering by and interpreted in accordance with South African law and any disputes arising herein shall be subject to South African arbitration under the rules of the Arbitration Foundation of South Africa, which rules are deemed incorporated by reference in this clause. The reference to arbitration shall not present pransnet referring the matter to any South African courts, having jurisdiction, to which the Surplies hereby irrevocably submits but without prejudice to Transnet's right to take proceedings against the Supplier in other jurisdictions and/or obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision in other courts or from instituting in any court of competent jurisdiction any proceedings for an interdict or any other injunctive relief. If the Supplier does not have a registered office in the South Africa it will at all times maintain an agent for service of process in South Africa and shall give Transnet the name and address of such agent as such may be amended, in writing, from time to time.

17 GENERAL

Completion or termination of an Order shall be without prejudice to any Term herein which by its nature would be deemed to continue after completion or termination, including but not limited to clauses 5, 6, 7, 8 and 12. Headings are included herein for convenience only. If any Term herein be held illegal or unenforceable, the validity or enforceability of the remaining Terms shall not be affected. No failure or delay by Transnet to enforce any rights under these Terms will operate as a waiver thereof by Transnet. All

rights and remedies available to either party under these Terms shall be in addition to, not to the exclusion of, rights otherwise available at law.

18 COUNTERPARTS

These Terms and conditions may be signed in any number of counterparts, all of which taken together shall constitute one and the same instrument. Any party may enter into this agreement by signing any such counterpart.



Section 4 BACKGROUND AND SCOPE OF REQUIREMENTS

TRANSNET



General Specification
Repair works to a 132/25kV, 20MVA single phase traction transformer.

BACKGROUND

Transnet Freight Rail requires the provision of the refurbishment of 5×20 MVA Traction Transformers situated at the Lesseyton-, Carrickmo e-, Doi ne- and Lalisa substations.

SCOPE OF REQUIREMENTS

1. REFERENCE LIST

1.1

The allowing publications are referred to herein:

1.1. ANS 555. 1995: Insulating Oil for Transformer and Switchgear.

1...2 IEC 76 1993: Transformers

1.1.4 BSS 171 1987: Power Transformers

🚅 5 - Transnet Freight Rail

CEE.0045.90 Painting of steel components of electrical equipment. E.4E (April 1997). Safety Arrangements and procedural Compliance with the

Occupational Health and Safety Act.

CEE. GI 012 Supervision and Maintenance of oil in electrical equipment

2. TENDERING

- 2.1 In order to evaluate the offers for the contract, Tenderers are requested to submit a breakdown of prices **per transformer** for the various items to be performed (**Bill of quantities per transformer attached**).
- 2.2 Transnet Freight Rail shall not disclose the successful tender's tender price or any other tender prices, as this is regarded as confidential information.
- 2.3 Transnet Freight Rail (hereafter refer to as TFR) reserves the right to inspect the tenderers facilities, plant and equipment prior to awarding the contract in order to ensure that it is suitable for the type of operations required.
- 2.4 The Tenderer must indicate if a sub contractor will be utilized to perform portions of the work and ensure that the sub contractor is competent in performing the duties.

2.5 The sub contractor may only be appointed by the main contractor if approval has been obtained from TFR.

3. TENDER REQUIREMENTS.

- 3.0 The contractor shall conduct an inspection on site, to determine the actual site conditions namely the different access roads leading to the various substation sites, the condition of the access roads, overhead bridges and overhead transmission and communication lines, the nearest towns and possible suppliers of material and equipment to the site, the availability of water and electricity as well as the weather conditions.
- 3.1 The contractor will provide his own plant and equipment on site, (Oil filter part, standby generators, security or any other plant and equipment required to execute the work safely)
- The physical size and dimensions of the transformer and its associated parts. (See the attached file "25kV traction transformer.xls" as a reference, the transformer measurements and information provide must be verified by the contractor on site.)
- 3.3 The contractor shall submit a **schedule of the work to be performed** on each transformer. Included in his schedule shall be the costs as per the sci edule of prices and a program for the complete repair work.
- The repair period per transformer will be negotiate, between TFR and the contractor up to a maximum period of 3 weeks (21days). A penalty of RF20.0 rane will be enforced should the contractor not adhere to the laid down time frames per transformer.
- 3.5 The contractor shall quote separate la our rales for work not specified in the schedule of prices.

4. WORK TO BE PERFORMED ON TRANSFORMER.

4.1 THE DISMANT ING OF THE TRANSFORMER COOLING FINS AND CONSERVATOR TANK WITH ALL ASOCIATED BRACKETS.

- 4.1.1 Close the main transformer tank oil valves leading to the cooling fins and conservator tank. Drain the oil from the cooling fins and conservator tank in a suitable container. (Contractor to specify container and container PCB free)
 - Remove all the transformer cooling fins, all their attachment brackets and support brackets if applicable from the main transformer tank, place/stack the fins neatly on site. Ensure that all the valves and taps are properly closed. Fin oil entry holes to be closed to stop water and debris entering it during this time. (the transformer dimensions and weight is attached)
 - 4.1.3 Specify the hydraulic crane lifting capacity at various reach distances. (Dated test certificates).
 - 4.1.4 Remove the oil conservator tank with attachment and support brackets and place neatly on site. Ensure that all the valves and taps are properly closed to prevent oil leaks
 - 4.1.5 The Contractor must provide details on all the lifting equipment to be utilized with inspection sheets and appropriate certificates together with operator's certificate of competence.

4.2 THE TRANSPORTATION OF THE TRANSFORMER FINS AND CONSERVATORE TANK WITH ALL THE ATTACHMENT BRACKETS TO AND FROM SITE IF PREFERRED:

- 4.2.1 The loading of the transformer cooling fins, the cooling fins must be properly stacked and secure, bolted together (Sandwich type arrangement), in easy manageable stacks. Ensure that no damage will occur during the transport of the cooling fins, to the repair site and during the off loading of the cooling fins at the repair site. Close the oil entry openings to keep moisture out.
- 4.2.2 The loading of the transformer conservator tank with all the associated brackets, and support brackets on the truck. Ensure that all the oil valves and taps are properly closed. The tank and support brackets must be properly secure to the truck before transportation.
- 4.2.3 Contractor to provide detail on all the lifting and transport equipment to be utilized with inspection sheets and appropriate certificates.

4.3 TRANSFORMER CORE, CORE WINDINGS, WINDING SULATION, ELECTRICAL CONNECTIONS AND MECHANICAL CONNECTIONS AND MECHANICAL CONNECTIONS AND MECHANICAL CONNECTIONS.

- 4.3.1 Drain the oil from the transformer main tank completely.
- 4.3.2 Remove the High and Medium 16 tage bushings and blank off openings. The bushings must be neatly cac ed at an angle of 45°. TFR will provide new Medium Voltage 52kV bushings to contract (Care to be taken not to damage the CT's on removal and re-fitment on the bushings)
- 4.3.3 Remove the transformer tank main lid to allow the Contractor and TFR staff to inspect the tap changer, core and core winding insulation and all exposed mechanical and electrical contractions for damage
- 4.3.4 Remove any unwanted objects, repair any insulation damage and contact damage on the ten changer and re-torque the core bolts to the correct torque settings 135N.m.

 Refair an ournt or damage contacts, insulation damage, faulty terminations and fully connections.
- 4.3. Pe-insulate the HV and MV leads to the various bushings with paper tape eight layers per conductor.
- This process should not exceed a time period of more than 24hrs to limit the exposure of the core and windings to the atmosphere. During this phase the transformer must be covered with a suitable cover which will prevent rain dust and any impurities form entering the main tank.
- 4.3.7 Megger test core insulation immediately after the cleaning and repair process these readings to comply to SANS standards
- 4.3.8 Refit the 132 kV and new 52kV bushings. (Care must be taken not to damage the CT's inside the transformer main tank.) Allow to replace or modify the studs to fit the old and new bushings if required.
- 4.3.9 Replace all the gaskets, seals and fill main tank with oil, vacuum the main transformer tank to the correct Torr.
- 4.3.10 Supply and fit new core/earth insulator on the outside of the main tank and replace this insulators cone rubber.
- 4.3.11 Check and service all earth connections.

4.4 THE MEASUREMENT AND PROTECTION EQUIPMENT.

- 4.4.1 Service oil and winding temperature pockets, fill with new oil, remove rust apply 1 coat NS4.
- 4.4.2 Repair all leaks to Bucholtz relay including the test valve and sight glass gaskets.
- 4.4.3 Service and secure and seal all control/ protection wiring inside the main tank before closing.

4.5 THE TRANSFORMER COOLING FINS:

- 4.5.1 Complete refurbish all the cooling fins, attachment support brackets, gaskets "Type TF 72", drain plugs, valves, O rings, washers and seals.
- 4.5.2 O Rings to be fitted to all the valve stem seals and dowty washers to be fitted to all the cooling fin drain plugs
- 4.5.3 The Contractor to remove all the rust and 30mm of the existing paint around the rust effected area, or any other form of corrosion or a mage.
- 4.5.4 Do a spot repair on the rusted areas, remove and rust and 30mm of the existing paint around the rust effected area, degree to be treated effected area, apply one coat NS4 red colour
- 4.5.5 Remove all lose paint (Specify method)
- 4.5.6 Clean the inside of the crolling fins of any carbon or sludge, air blast and rinse with new oil and pressure test and fin to ensure that no oil leaks will occur.
- 4.5.7 If hole or leaks are detected on the cooling fins, specify repair method to be utilised as not to damage or realen the current mechanical condition of the cooling fin material.
- 4.5.8 Clean and degrease the outside of the cooling fin and paint the outside of the cooling fins complete with two coats of Noxide "Airless spray" as per specification (EE.2045.90. Painting of steel components of electrical equipment. An airless spray machine must be used not a normal spray compressor.

4.6 THE TRANSFORMER MAIN TANK:

- Complete refurbishment of the transformer main tank with all associated equipment, drain valves and plugs, washers, O-rings, gaskets, temperature control box, Bucholtz pipes, and temperature probes.
- 4.6.2 Remove all the rust or any other form of corrosion from the main tank, the rusted area as well as an additional 30mm of the existing paint surrounding the rusted area, degrease the treated effected area, apply one coat NS4 red colour.
- 4.6.3 Clean the tank "degrease" and repaint the outside of the tank with two coats Noxide "Airless spray or hand brush" as per specification CEE.0045.90. Painting of steel components of electrical equipment.
- 4.6.4 All the gaskets must be replaced with type TF 72 of same thickness. Size 10mm gasket on the main lid. The stop and drain valves, drain plugs, washers and O-rings must be replaced. Fit new dowty washers to drain plugs on all the fins.
- 4.6.5 Allow for the replacement of all broken or missing bolts and nuts as well as the bushing studs (16mm)
- 4.6.6 Raise the transformer main tank from the plinth if applicable, secure the main tank, remove all the rust or any other form of corrosion from the main tank, the rusted area as well as an additional 30mm of the existing paint surrounding the rusted area, degrease the treated effected area, apply one coat NS4 red colour. Clean the tank "degrease" and repaint the outside of the tank with two coats of Noxide "Airless spray or hand brush" as per specification CEE.0045.90. Painting of steel components

of electrical equipment. Fit malthoid 3 layers and lower the main tank back into existing position.

4.7 THE CONSERVATOIL TANK WITH SUPPORTING BRACKETS:

- 4.7.1 Complete refurbishment of the transformer conservator tank. Remove all the rust and or any other form of corrosion, with 30mm of the existing good paint surrounding the rust effected areas, degrease the treated effected area, and apply one coat NS4 red colour. Lift the conservator off its stand and mounting brackets, de-rust and paint these areas and fit a 6mm type 72 packing on this bracket and re secure same.
- 4.7.2 Clean the tank "degrease" and repaint the inside of the tank with NS4/gliptol and degrease outside of the tank and supporting brackets and paint with 2 coats of Noxide by means of "Airless spray" as per specification CEE 0045.90. Painting of steel components of electrical equipment.
- 4.7.3 Pressure test the conservator tank to ensure that no cildraks will appear.
- 4.7.4 The inside of the conservator tank must be sandbi-sted and clean and be painted with gliptol or be replace with a 3CR12 S/Steel tank
- 4.7.5 All the gaskets must be replaced with the FT and all the stop valves refurbish and washers, O rings are replaced.
- 4.7.6 Supply and install new site glasse, and site glass housings where required.

4.8 THE COMPLETE REASSEMBLY OF THE TRANSFORMER:

- 4.8.1 Re-gasket the transformer with type TF 72, 10mm thick for the main lid (torque main lid bolts 55Nm) and 5 mm for the rest of the gaskets
- 4.8.2 Fit the cooling ins to the main transformer complete with new gaskets and torque all bolts and puts to the minimum specified torque settings for the appropriate bolts.
- 4.8.3 Install leaving support brackets, hot dip galvanised and painted as per specification CPE coats 90 two coats. Tension the support bracket rod to ensure an even distribution of the oil fin loads.
- 4.84 Fit we conservator tank with all attachment brackets
- 4.55 Services oil, and winding temperature gauges and Bucholtz relay.
- 4.26 Fill the transformer with the existing oil under a vacuum process.
- 1.8.7 Top up the transformer with virgin oil "Conservator tank sigh glass indication" and filter the transformer oil a minimum of 3 passes to ensure a 65kV dielectric strength and a water content of less than

4.9 GRENERAL REPAIRS AND REQUIREMENTS.

- 4.9.1 Allow for the replacement of studs, nuts and bolts with equal quality studs, bolts and nuts as and when required. Welding of stud may be required (Provision)
- 4.9.2 Secure all cables and pipes
- 4.9.3 Overlap the gasket joints (Lap joint) to ensure that no oil leaks will appear.
- 4.9.4 Draw a vacuum. Fill the transformer with the existing transformer oil PCB free under vacuum condition.
- 4.9.5 Check all gaskets, valves, stop taps for any oil leaks, and repair if leaks are identified.
- 4.9.6 Filter the transformer oil, a minimum of 4 passes at 70 degree Celsius under a vacuum of 5 Torr. Contractor to supply their own generator and filter plant.

4.9.7 Re-torque all bolts and nuts after a four month period form completion

5. SERVICE CONDITIONS

The transformer must perform to its rated design after testing for continuous operation for a period of 24 hours to ensure no damaged was cause to the transformer during transport.

6. DRYING THE TRANSFORMERS IF REQUIRED

- 6.1 The following methods of drying out the transformer may \mathbf{b} used:
- 6.1.1 The vapour phase process.
- 6.1.2 The oven dry process.
- 6.1.3 The vacuum dry out process
- 6.2 Tenderers who offer a vapour phase process to dean and dry transformers must ensure that the process does not cause any exterioration on the aged insulation.
- 6.3 For the vapour phase process the moisture level shall be less than 1, 0 percent.
- 6.4 The tendered shall indicate what ry-out process is to be implemented and the method used to determine the specified moisture level.

7. INSULATING OIL

- 7.1 TFR will make the last test results of the transformer oil available to the contractor.
- 7.2 The contractor shall ensure that the mineral insulating oil used for topping up the recurrence tests specified in SABS 555.1995, and be PCB free. Top up oil to be supplied by contractor. Top up level as indicated by conservator sight level indicator at 21 degree C. Use virgin oil.
- 7.3 TFI will make a test certificate available concerning PCB contamination before the classembling of the transformer may proceed, to ensure that it is within the maximum allowable specification.
- The contractor shall arrange via the "Contract Manager" to have oil samples taken from the transformer when it is filled and filtered on site. The oil samples shall be taken by the Maintenance Electrical Protection Staff for tests to ensure that the oil complies with the specified requirements of SABS 555.1995 before the transformer is energised and placed on load.

8. TESTS ON REPAIRED TRANSFORMER

- 8.1 The power transformer shall withstand the routine tests specified in specification IEC 76.1993 or BSS 171.1987 which ever one is applicable. The cost for the tests shall be included in the tender.
- 8.2 The previous test results will be made available to all Tenderers
- 8.3 The contractor shall submit test certificates of the test results to the TFR staff witnessing the tests and to the "Contract Manager".

9. INSPECTION

- 9.1 TFR reserves the right to be present during the transport, repair work and testing and must be timeously advised of the dates of commencement of the repair work and of testing.
- 9.2 Arrangements must be made timeously via the "Contract Manager" for the TFR protection staff, to witness and authorise the tests for the transformer repaired.
- 9.3 Each phase of the repair work must be inspected and approved by TFR before the next phase may proceed.
- 9.4 Calibration certificates less than 12 months old issued by a recognised—authority for all instruments to conduct tests on transformers shall be available for inspection, if requested by TFR.

10. CORROSION PROTECTION AND PAINT FINISH

- All exterior metal surfaces of the transformer, and associated apparatus, damaged during the transported of the transformer and subject to corrosion, shall be prepared for corrosion propfing and painted in accordance with the practice recommended in SABS 08 1 1379 and as specified in TFR's Specification No. CEE.0045.90
- 10.2 The transform of base must be inspected for rust and any defects to the metal surface. All the defects detected must be repaired before the placing of the transformer.
- 10.3 All extra claurfaces shall be finished with an acceptable outer coat colour to match the existing finish.

11. PACKING

- 11. The transformer fins and conservator tank shall be loaded in such a manner that it shall not sustain damage during handling and transportation, and precautions shall be taken to ensure that moisture cannot enter the equipment.
- The transformer fins and conservator tank transport to the new site, filling with oil under vacuum and filter process must be a continuous operation with no break in the process to ensure that no moisture enters the transformer.
- 11.3 The contractor will specify the safe method and equipment utilising for raising and lowering of the transformer main lid, fins and conservator tank on to and from the truck. (Safe working statement)
- 11.4 The rating of the crane and jacks to be used for the lifting and lowering process must be specified in the tender documents and exceed the load of the equipment.

12. GUARANTEE

- 12.1 The contractor shall guarantee the transformer against faulty workmanship for a period of twelve months from the date the transformer has been energised.
- 12.2 The "Contract Manager" shall notify the contractor in writing of the date when the transformer shall be energised.

13. CERTIFICATE OF ACCEPTANCE

13.1 The issuing of an inspection certificate will be authorised by the Quality Assurance Section of Transnet Freight Rail after final acceptance of the transformer.

14. OUALITY ASSURANCE

14.1 The Tenderer shall indicate at the tendering stage what steps have been taken to implement a Quality System in terms of ISO 9002 and shall submit a Quality Plan.

15. SAFE WORKING ON TRANSNET FREIGHT RAIL SUBSTATION SITES

- The contractor or his sub-contractor shall be required to took on site in accordance with TFR safety specification E4E of April 1997 and the Occupational Health and Safety Act 85 of 1993.
- The contractor shall be required to work under direct supervision of TFR's appointed "Electrical Officer and Technical officer Contract." of the and shall work only in the area which shall be demarcated by suitable parts. If required.
- The contractor must submit a written safe working statement on the work to be performed including a fall protection plan before any work may commence.
- 15.4 The contractor must appoint a property supervisor on site who must always be present during the const act in work.
- 15.5 The contractor must ensure that all the production staff are trained and certified to perform the duties equire to execute the work.
- 15.6 The contracto must insure that all the staff under his control holds a medical certificates to provide the they are fit to perform the work
- The contractor must ensure that all the sub contractors, riggers and scaffold rectors are certified and that all scaffold work is inspected and certified accordingly by an inspector.
- The contractor must ensure that the correct slings and chains are utilised, and that lie equipment inspection sheets and certificates are made available on site in the safety file.
- No work may commence before all the mentioned appointment letters, medical certificates, written safe working statement and all legal documents are submitted in a safety file to the Contract Manager.
- 15.10 The complete safety file must be made available within three weeks of notification that the contract has been awarded failure to deliver the file in time will let to the cancellation of the contract.

16. RISK AND POSSIBLE HAZARDS CONDITIONS

- 16.1 Hazardous materials to be properly stored (Petrol, diesel and cleaning materials).
- 16.2 No work may be done under live conditions.
- 16.3 The contractor must ensure that all the transformer oil containers are in good order and that no oil spills will occur.
- 16.4 Transformer oil is highly flammable and no welding may take place that might ignite the transformer oil.
- 16.5 All the transformer oil containers and the filter plan must be certified PCB free.
- 16.6 No work may commence during lightning conditions.

16.7 The contractor must arrange his own safety staff to protect his plant and equipment

17. INSURANCE

- 17.1 The contractor will arrange insurance for all his plant and equipment utilized on site.

 The contractor will provide liability insurance to cover any incident or claim that may arises during the contract execution period.
- 17.2 The contract must also arrange for insurance cover for possible oil spills on site and during transport from or to the transformer repair sites.

18. PENALTIES

REVIEW

- 18.1 The contractor will provide a safety file with all relevant documents namely; appointment letters, written safe working statement, medical certificates, good standing with the compensation commissioner, appointment of competent supervisors, six linear stion book, site dairy, fall protection plan etc within 2 weeks of appointment and a super that their site diary is present at all times...
 - 18.2 Failure to provide the mentioned documentation will automatically led to the cancellation of the contract.
 - The following penalties will apply or part thereof for any delays, i.e. R500 per day up to a maximum of 12 % or be contract amount according to the scheduled energising date after commissioning a the substation.

Section 5 CERTIFICATE OF ATTENDANCE: INFORMATION BRIEFING SESSION

It is hereby certified that -	
1	
2	
Representative(s) of(name of company)	
attended the site inspection / briefing session (in respect of RFQ on2013.	the proposed service to be rendered in terms of this
TRANSMET'S CEPRESENTATIVE	RESPONDENT'S REPRESENTATIVE
ENTE	DATE

Section 6 ATTACHMENTS

ANNEXURE A

GENERAL TENDER CONDITIONS – SERVICES Refer Form CSS5 attached hereto.

ANNEXURE B

SPECIFICATION FOR WORK ON, OVER, UNDER ON ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT Refer Form E7/1 attached hereto.

ANNEXURE C

SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT; ACT 85 OF 1993 AND REGULATIONS Refer Form Safety Arrangements attached hereto.

ANNEXURE D

PAINTING OF STELL COMMONENTS OF ELECTRICAL EQUIPMENT Refer Form attached he eto

ANNEXURE

SUPPLIER COPE OF CONDUCT Refer Form attached hereto

ANNEXURE F
RFQ DECLARATION FORM
Refer Form attached hereto. (Compulsory)

Section 7 ACKNOWLEDGEMENT

By signing this RFQ document, the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed to properly take it into account for the purpose of calculating quoted prices or otherwise.

SIGNED at		on this	day of		20
		4	O		
SIGNATURE OF RES	SPONDENT'S AUTHO	RISED REPRISE	NTATIVE		
NAME:		Δ			
DESIGNATION:					
REGISTERED NAME	OF COMPANY				
PHYSICAL ADDRES	S:				
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Respondent's con	ntact person: [Pleas	se complete]			
Name	:				
Designation	:				
Telephone	;				
Cell Phone	:				_
Facsimile	•				
Email	:				
Website	•				

Transnet urges its clients, suppliers and the general public to report any fraud or corruption to TIP-OFFS ANONYMOUS: 0800 003 056

Respondent's Signature Date & Company Stamp