

TRANSNET FRAIGHT RAIL, a division of

TRANSNET SOC LTD

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

REQUEST FOR QUOTATION [RFQ] No: ERAC-WGO-MMC2-22036

FOR THE PROVISION OF TESTING AND COMMISSION OF 3KV DC TRACTION AND 11KV DISTRIBUTION SUBSTATIONS ON ROUTINE AND AS AN WHEN REQUIRED BASIS, UNDER THE CONTROL PEPOT ENGINEER, WITBANK

BRIEFING SESSION DATE 01 SEPTEMBER 2016

TRANSNET

28 PLEIN STREET MIDDLEBURG

IME 10:00

FOR DIRECTIONS CONTACT PERSON: MPUMELELO PONYELA ON 083 401 8373

ISSUE DATE: 24 AUGUST 2016

CLOSING DATE: 08 SEPTEMBER 2016

CLOSING TIME: 10:00

VALIDITY DATE: 30 NOVEMBER 2016

Section 1 NOTICE TO BIDDERS

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

METHOD: Collection and Submission of tender document
CLOSING VENUE: Transnet Freight Rail, Tender Advice Centre

Nzasm Building, Ground Floor G16 Corner Minaar & Paul Kruger Streets

Pretoria 0001

NB: Tender box are only available from Monday to Friday from 07hood 16h00. Tender box is not available 24 hours.

1 Responses to RFQ

Responses to this RFQ [**Quotations**] must not include document or reference relating to any other quotation or proposal. Any additional conditions must be a bodied in an accompanying letter.

2 Broad-Based Black Economic Empowerment [1-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. As described in more detail in the attached B-BBEE Claim Form Transnet will allow a "preference" to companies who provide a valid B-BBEE Verification Certificate.

The value of this bid is estimated to below R1 000 000 (all applicable taxes included) and therefore tender will be evaluated a **80,20** preference point system.

Respondents are required to complete Annexure A [the B-BBEE Preference Point Claim Form] and submit it togethe with proof of their B-BBEE Status as stipulated in the Claim Form in order to obtain preference points for their B-BBEE status.

Note: Failure to submit a valid and original B-BBEE certificate or a certified copy thereof at the Closing Date of this RFQ will result in a score of zero being allocated for B-BBEE.

2. B-BBEE Improvement Plan

2.1. Transnet encourages its Suppliers/Service Providers to constantly strive to improve their B-BBEE rating. Whereas Respondents will be allocated points in terms of a preference point system based on its B-BBEE scorecard to be assessed as detailed in paragraph 2.1 above, in addition to such scoring, Transnet also requests that Respondents submit a B-BBEE improvement plan. Respondents are therefore requested to indicate the extent to which the extent to which they will maintain or improve their B-BBEE status over the contract period. Respondents are requested to submit their B-BBEE Improvement Plan as an additional document with their Proposals by completion of *Annexure* A appended hereto.

3 Communication

Respondents are warned that a response will be liable for disqualification should at vattempt 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.

A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name: Morris Mhlongo

Email: <u>morris.mhlongo@transnet.net</u>

Telephone: **(012) 315 4122**

Respondents may also, at any time **after the closing Late of the RFQ**, communicate with the Buyer of the Transnet Freight Rail on any matter relating to its RFQ response:

Name: Matete Madisha

Email: <u>matete.mac.ha@transnet.net</u>

Telephone: **(011) 578 760**

4 FORMAL BRIEFING

A compulsor clarification meeting with representatives of the Employer will take place on Monday, 25 July 2016, 10H00 at Transnet, Electrical Maintenance Boardroom, 28 Plein Street, Middlet Jurg

(Contact Person: Mpumelelo Ponyela ON 083 401 8373)

- 4.1. A Certificate of Attendance in the form set out in Section 14 hereto must be completed and submitted with your Quotation.
- 4.2. Respondents failing to attend the compulsory site meeting and/or RFQ briefing will be disqualified.

5 Legal Compliance

The successful Respondent shall be in full and complete compliance with any and all applicable national and local laws and regulations.

6 Changes to Quotations

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

7 Pricing

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

8 Prices Subject to Confirmation

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

9 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.

10 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 instruction, and pecifications which are detailed herein;
- disqualify Quotations submitted after the state submission deadline;
- not necessarily accept the lowest priced Quality or an alternative bid;
- · 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/ thetheen more than one Supplier/Service Provider should it at
 Transnet's discretion be more dvantageous in terms of, amongst others, cost or developmental
 considerations;
- make no award at all.

Should a contract be awarded on the strength of information furnished by the Respondent, which after contract of the contract, is proved to have been incorrect, Transnet reserves the right to cancel the contract.

Transnet reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another bidder.

Transnet reserves the right to conduct Post Tender Negotiations (PTN) with selected Respondents or any number of short-listed Respondents, such PTN to include, at Transnet's discretion, any evaluation criteria listed in the RFQ document.

Should the preferred bidder fail to sign or commence with the contract within a reasonable period after being requested to do so, Transnet reserves the right to award the business to the next highest ranked bidder, provided that he/she is still prepared to provide the required goods at the guoted price.

11 SCOPE OF WORK

This specification covers the work and procedures for routine testing of protection equipment at Traction and Distribution substations. This specification also covers any other work arising out of or incidental to the above or required contractor for the proper completion of the works in accordance with the true meaning and intent of the contract document.

Routine tests: The purpose of routine testing is to verify that the electrical protection equipment is functioning correctly and that protection settings are according to relevant equipment ratings.

All equipment in Distribution Substations-, Traction Substations- and Tie Stations must be tested as follows:

- 11.1. **Commissioning tests**: The Contractor shall test all electrical projection equipment at all existing or newly built Signal and Distribution Supply, Traction Substantial and Tie Stations in which relevant equipment has been replaced on an emergency repair or newly installed basis as follows:
- **11.1.1. Current transformers**: Insulation test by 2.5 kV negger. Ratio (by primary injection at either rated current or a percentage thereof) and full negnetisation curve. Polarity tests where applicable.
- **11.1.2. Protection relays**: Current Injection tosts on all phases and to earth at all percentages i.e. at 125, 200, 400 and 600% of set value for distribution equipment and at 200 and 400% for traction equipment of secondary reten content noting tripping times and indications as indicated on relevant test sheets. Where Distribution Ring feed systems are protected by Pilot Wire protection the SOLKOR /TRANSLAY relays must be tested by secondary injection to trip at the percentage values in the local and remote substations with a stability test by primary injection on one phase to earth or to a second phase, noting the milliamp current flow in the pilot wires.
- **11.1.3. AC, OC Farth and Frame Leakage systems**: Insulation values to earth and between separate systems/zones by suitable earth and insulation meggers. Tripping current values by Primary injection for relevant zone/systems to be noted to give required tripping, indications and lockout Systems shall be tested for possible parallel paths as well.
- **11.1.4. Transformer protection:** Buchholtz relays to be tested by air injection/test trip noting trip level to give lockout and indication. Oil and Winding Temperature Gauges to be tested by dial indication to give trip, indication and lockout as applicable. Where required a calibration test is to be done by heat simulation.

Pressure Relief Devices tested by test trip noting trip, lockout and indication.

Ratio test at all tap positions when required.

11.1.5. Indicating meters: By primary injection of Current and Voltage applicable.

- **11.1.6. Insulation levels:** Megger and Pressure test on complete installation in the case of distribution panels and Pressure test on rectifiers in the case of traction substation.
- **11.1.7. Main and auxiliary supplies failures:** Phase/AC fail relays to be tested and Battery under voltage relay to be calibrated to trip and lockout all circuit breakers.
- **11.1.8. 3 kV under voltage Protection:** To be calibrated by HV DC primary injection.
- **11.1.9. Rectifier Protection:** Over temperature, diode indication and attenuation circuit protection to be verified by simulation tests.
- **11.1.10.** Wave filter equipment: To be measured and calibrated
- **11.1.11. Primary Circuit Breaker/Primary disconnects replacement:** To be tested strictly according to relevant commissioning sheet including speed and contact resistance tests on primary circuit breakers.
- **11.2. Routine tests**: The Contractor shall test all electrical protection equipment at all existing Signal and Distribution Supply, Traction Sub- and Tie Stations as follows:
- **11.2.1. Current transformers**: Magnetisation curve to be tested at a cinimum of two points at knee-point voltage as depicted on previous routine or commissioning lest reports If not according to commissioning values a full magnetisation curve must be done. If not within tolerances a ratio test must be performed to prove the integrity of the current transformer.
- **11.2.2. Protection relays**: Current Injection Tests of 200 and 600/800 percent indicated on relevant test sheets of secondary rated current loting tripping times and indications. Where Distribution Ring-feed systems are protected by Pilot Wire protection the SOLKOR /TRANSLAY relays must be tested by secondary injection to trip at the percentage values in the local and remote substations with a stability test by primary injection on one phase to earth or to a second phase, noting the milliamp current flow in the pilot wires.
- **11.2.3. AC / DC Earth and Frame Leakage systems**: Insulation values to earth and between separate systems/zone, by suitable earth and insulation meggers .Tripping current values by Primary injection for relevant zone/systems to be noted to give required tripping, indications and lockout. Systems shall be tested for possible parallel paths as well.
- **11.2.4. Transformer protection:** Buchholtz relays to be tested by air injection/test trip noting trip level to give lockout and indication.

 Oil and

Winding Temperature Gauges to be tested by dial indication to give trip, indication and lockout as applicable. Where required a calibration test is to be done by heat simulation.

Pressure Relief Devices tested by test trip noting trip, lockout and indication.

- **11.2.5. Indicating meters**: By secondary injection of Current and Voltage applicable at full scale deflection. By exception, in DC traction substations the 4 kV DC indicating voltmeters must be tested by primary HV DC injection.
- **11.2.6. Insulation levels:** Pressure test not required.
- **11.2.7. Main and auxiliary supplies failures:** Phase/AC fail relays to be tested and Battery under voltage relay to be calibrated to trip and lockout all circuit breakers.

- **11.2.8. 3 kV Under voltage Protection:** To be calibrated by HV DC primary injection.
- **11.2.9. Rectifier Protection:** Over-temperature, diode indication and attenuation circuit protection to be verified by simulation tests.
- **11.2.10. Wave filter equipment:** To be measured and calibrated
- **11.2.11. Primary Circuit Breaker:** To be tested strictly according to relevant routine sheet regarding speed and contact resistance.
- **11.3.** The Contractor shall supply latest copy of calibration certificate of testing equipment.
- **11.4.** The Contractor shall do testing for minor repair work and re-testing where faulty equipment is identified during the above testing period. (Transnet will supply all material required for these repairs).
- **11.5.** The Contractor shall do commissioning tests as and when required at any Distribution Substation and Traction Sub- **Forfar to Machadodorp and Derwent to Rossenekal** for the next
- **12 months** when major repair/replacement work is conducted (Transnet will supply all material required for these repairs) as well as Routine Testing where required.
- **11.6.** The Contractor shall complete the test sheet as applicable and defects report as applicable for Routine Testing and Commissioning.
- **11.7.** The technician/electrician who will assist during the contract as based in the relevant maintenance depot from where he will depart and accompany the contractor every morning.
- **11.8.** A technician/electrician from Transnet win previde access to the substations and will and issue applicable work/test permits to isolate and earth all equipment before handing it over for testing purposes. The contractor shall confirm the isolation and earthing applied as well as the work limits. No work shall be done in any substation without the presence of a Transnet representative.
- **11.9.** The Contractor shall supply the roject Manager with test sheets and defects report per substation tested.
- **11.10.** Transnet shall provide security where necessary for the duration of the contract.

12. GUARANTE AND DEFECTS

- 12.1. The courth ctor shall guarantee the satisfactory operation of the complete electrical installation supplied and erected by him and accept liability for maker's defects that may appear in design, materials and workmanship.
 - 12.2. The Contractor shall be issued with a completion certificate with the list of all defects to be repaired within 14 working days after commissioning.
 - 12.3. The guarantee period for these standby plants shall expire after: A period of 12 months commencing on the date of completion of the contract or the date the standby plant was handed over to Transnet Freight Rail.
 - 12.4. Any defects that may become apparent during the guarantee period shall be rectified to the satisfaction of Transnet Freight Rail, and to the account of the Contractor.

- 12.5. The Contractor shall undertake work on the rectification of any defects that may arise during the guarantee period within 7-days of him being notified by Transnet Freight Rail of such defects.
- 12.6. Should the Contractor fail to comply with the requirements stipulated above,

 Transnet Freight Rail shall be entitled to undertake the necessary repair work or
 effect replacement of defective apparatus or materials, and the Contractor shall
 reimburse Transnet Freight Rail the total cost of such repair or replacements,
 including the labour costs incurred in replacing defective material.
- 12.7. Any specific type of fault occurring three times within the guarantee period and which cannot be proven to be due to other faulty equipment not forming part of this contract e.g., faulty locomotive or overhead track equipment, etc., shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the Project Manager of Supervisor and at the cost of the Contractor.
- 12.8. If urgent repairs have to be carried out by Transn't Freight Rail staff to maintain supply during the guarantee period, the Contractor shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse Transnet height Rail the cost of material and labour.

12.9. TENDERING PROCEDURE

- 1. An addendum reflecting changes to the project specification and 'Bill of Quantities' shall be forwarded to 'On' actors after the site meeting and Contractors should quote accordingly.
- 2. Contractors shall duly fill in the attached 'Bill of Quantities'. The prices shall be fixed for the duration of the contract (12 months) and no escalation will be allowed. Items not reflect d in this Schedule, but covered in the project specification or agreed at site meetings, shall be added to the 'Bill of Quantities' by the Contractor and quoted for accordingly.
- 3. Contractors shall submit qualifications of the staff that will be performing the works. Only qualified technical personnel shall perform the works on the electrical equipment or installations. During the duration of the contract the successful Contractor will be required to inform the Technical Officer of any staff changes and provide the qualifications of the replacement staff for approval.
- 4. Contractors shall indicate clause-by-clause compliance with the specification. This shall take the form of a separate document listing all the specifications clause numbers indicating the individual statement of compliance or non-compliance. This document can be used by Contractors to elaborate on their clause.

- 5. Contractors shall motivate a statement of non-compliance.
- 6. Contractors shall duly fill the Tender SHE Management system questionnaire.
- 7. Contractors shall duly fill or Provide information on plant / equipment and Labour that you have available for this project.
- 8. Where equipment offered does not comply with standards or publications referred to in the specification, Contractors shall state which standards apply and submit a copy in English or certified translation.
- 9. Contractors shall submit descriptive literature consisting of detailed technical specifications, general constructional details and principal dimensions, together with clear illustrations of the equipment offered. During the duration on the contract period, the successful Contractor will be required to inform the Project Manager / Technical Officer of changes to equipment offered and submit detailed information on replacement equipment for approval prior to it being used on this contract.
- 10. Contractors shall submit equipment type test certificates as specified with the Tender.

 These shall be in English or certified translation.
- 11. The Contractor will attend all site meetings convened by the Project Manager / Project Managers Deputy. Such meetings will be for the purpose of discussing progress, delays, materials, Conditions, specifications, etc. The meeting will be held under the chairmanship of the Project Manager / Project Managers Deputy.

12.10 Constraints on how the **Constraints** on the **Constraints** of the **Constrai**

- 12.10.1. The Contractor shall not make use of any Sub-Contractor to perform the works or parts, the pot without prior permission from the Project Manager.
- 12. The Contractor shall ensure that a safety representative is on site at all times.
- 12 10 3. Adopted from time to time and instructed by the Project Manager / Supervisor. Such compliance shall be entirely at his own cost, and shall be deemed to have been allowed for in the rates and prices in the contract.
- 12.10.4. The Contractor shall, in particular, comply with the following Acts and Transnet Specifications:-
- 12.10.5. The Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993. The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act.
- 12.10.6. The Occupational Health and Safety Act (Act 85 of 1993).
- 12.10.7. The explosive Act No. 26 of 1956 (as amended). The Contractor shall, when applicable, furnish the Project Manager / Supervisor with copies of the permits

- authorising him or his employees, to establish an explosives magazine on or near the site and to undertake blasting operations in compliance with the Act.
- 12.10.8. The Contractor shall comply with the current Transnet Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Project Manager / Supervisor.
- 12.10.9. The Contractor shall comply with the current Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment E7/1, if applicable, and shall take particular care of the safety of his employees on or in close proximity to a railway line during track occupations as well as under normal operational conditions.
- 12.11. The Contractor's Health and Safety Programme shall be subject to agreement by the Project Manager / Supervisor, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- 12.12. In addition to compliance with clause 1.4.4 hereof, the Contractor shall report all incidents in writing to the Project Nanager / Supervisor. Any incident resulting in the death of or injury to any person of the works shall be reported within 24 hours of its occurrence and any other incident shall be reported within 48 hours of its occurrence.
- 12.13. The Contractor chair make necessary arrangements for sanitation, water and electricity at these elevant sites during the installation of the equipment's.
- 12.14. A perialty starge of **R500.00** per day will be levied for late completion.
- 12.15. The contractor shall supply a **site diary** (with triplicate pages). This book shall be used to record any unusual events during the period of the work. Any delays to the work shall also be recorded such as delays caused by poor weather conditions, delays caused by permits being cancelled etc. The appointed Project Manager or Supervisor must countersign such delays. Other delays such as non-availability of equipment from 3rd party suppliers must be communicated to the Project Manager or Supervisor in writing.
- 12.16. The Contractor shall supply a site instruction book (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site for example the quality of work or the placement of equipment. This book shall be filled in by the Project Manager or Supervisor and must be countersigned by the Contractor.

- 12.17. Both books mentioned in 4.9 and 4.10 shall be the property of Transnet Freight Rail and shall be handed over to the Project Manager or Supervisor on the day of energising or handing over.
- 12.18. The Contractor will remain liable for contractual delivery dates irrespective of deficiencies discovered during workshop inspections.
- 12.19. Transnet Freight Rail reserves the right to award the contract based on delivery period due to the urgency of this substation.
- 12.20. Transnet Freight Rail reserves the right to award the contract in portions pertaining different work execution specialisation.

12.21. Services and other things provided by the Employer

- Transnet Freight Rail shall have an electrician/technical assistant available for isolation and the erection of barriers to live electrical equipment and issuing of work termits.
- Transnet Freight Rail Reserve The Right To Inspect The Compatibility Of Machinery Utilised Before Site Establishment.
- Transnet Freight Rail Shall Inspect All Equipment effect Dispatching The Equipment To Site.

13.1 QUALITY AND INSPECTION

- 13.1.1 Transnet Freight Rail shall inspect the equipment under contract on the premises of the Manufacturer or successful Contractor.
- 13.1.2 The Contractor shall houry Transnet Freight Rail 14 days in advance of such an inspection date.
- 13.1.3 The Contractor shall apply 14 days in advance for the date of energizing and ensure that all work is completed before any commissioning can take place.
- 13.1.4 The Contractor shall be responsible to issue a compliance certificate in terms of SANS 0142 for such site before energizing of the equipment shall take place.

13.2. TRAINING

- 13.2.1 The contractor's team performing the work could be required to attend an induction to familiarise them with hazards which may arise while working within the Transnet property.
- 13.2.2 The Contractor shall provide training to TFR staff during the contract period.
- 13.2.3 Transnet Freight Rail shall have an electrician/technical assistant available for isolation and the erection of barriers to live electrical equipment and issuing of work permits.
- 13.2.4 Upon successful completion of the works to the satisfaction of Transnet Freight Rail, Transnet Freight Rail shall perform necessary protection tests and commission the equipment.

14. SPECIFICATIONS

14.1. SOUTH AFRICAN NATIONAL STANDARDS:

14.1.1. SANS 1091 NATIONAL COLOUR STANDARD.

14.1.2. IEC 62053-21 WIRING CODE.

DC TRACTION SUBSTATIONS, SIGNAL SUPPLY & DISTRIBUTION SUBSTATIONS

The following test sheets are applicable as per annexures:

BBB0343 VER 2 Alternatively BBF 9001 ver 2 and BBF 9295

BBB0345 VER 2 Alternatively BBF 9296

BBB0346 VER 2 Alternatively BBF 9296 VER 2 and BBF 9297

BBC9921 VER 1 In accordance with Engineering Instruction G.018

BBB0347 VER 2 and BBB0348

BB0342 VER 2 ALTERNATIVELY BBF 8999 VER 2, BF 000

BBB0347: Substation Defect Report

BBB8128 Specification for Testin, and commissioning

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

RFQ FOR THE PROVISION OF TESTING AND COMMISSION OF 3KV DC TRACTION AND 11KV DISTRIBUTION SUBSTATIONS ON ROUTINE AND AS AN WHEN REQUIRED BASIS, UNDER THE CONTROL DEPOT ENGINEER, WITBANK

CLOSING VENUE: TRANSNET FREIGHT RAIL TENDER ADVICE CENTRE,
NZASM BUILDING, GROUND FLOOR G16
CORNER MINAAR & PAUL KRUGER STREETS
PRETORIA
0001

CLOSING DATE & TIME: 08 SEPTEMBER 2016 AT 10:00
VALIDITY PERIOD: 90 DAYS

SECTION 2 EVALUATION CRITERA AND RETURNABLE DOCUMENTS

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

Provider, ii so require	Su.
Criterion/Criteria	Explanation
Administrative	Completeness of reconnection and returnable documents
	Verify the validity of yet smable documents
	Whether the bit has been lodged on time
	Whether the bid contains a priced offer with a completed schedule of prices
Substantive	• Completed Clause by clause compliance to specification
responsiveness	Trade Test Certificate or National Diploma- Electrical
,	NB: Yailure to complete/submit the above mentioned documents,
	nder will not be evaluated to the next stage)
Functionally	Prequalification criteria, if any, must be met and whether the Bid materially
Thresh la	complies with the scope and/or specification given.
	Submit Health/Safety/Risk/Environmental Plan - 10%
	List Technical capacity/ Plant and Equipment/ resources – 40%
	Indicate the response time after call out - 10%
	Proven experience of testing of protection and commissioning of
	equipment substation – (40%)
	Respondents are to note that functionality is included as a technical threshold with
	a prescribed minimum percentage of 80% must be obtained in order to advance
	to next stage 3.

Final weighted	•	Pricing and price basis [firm]
evaluation based	•	B-BBEE status of company - Preference points will be awarded to a bidder for
on 80/20		attaining the B-BBEE status level of contribution in accordance with the table
preference point		indicated in Annexure A: B-BBEE Claim Form.
	1	

15. Validity Period

Transnet desires a validity period of 14 months from the closing date of this RFQ.

This RFQ is valid until 30 November 2016.

16. Disclosure of Prices Quoted

Respondents must indicate here whether Transnet may disclose their quoted prices and conditions to other Respondents:

YES	NO	

17. Returnable Documents

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

All Returnable Sections, as indicated in the header and footer of the relevant pages, must be signed, stamped and dated by the Respondent

a) Respondents are required to submit which heir Quotations the **mandatory Returnable Documents**, as detailed below.

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

Please confirm submission of these mandatory Returnable Documents by so indicating [Yes or No] in the tables below:

Mandatory Returnable Documents	Submitted [Yes or No]
- SECTION 2 Quotation Form	
 Con oleted clause by Clause compliance to specification Trade Test Certificate / National Diploma 	

b) In addition to the requirements of section (a) above, Respondents are further required to submit with their Quotations the following **essential Returnable Documents** as detailed below.

Failure to provide all these Returnable Documents may result in a Respondent's disqualification. Respondents are therefore urged to ensure that <u>all</u> these documents are returned with their Quotations.

	Essential Returnable Documents	Submitted [Yes or No]
	SECTION 2 : Evaluation criteria and returnable documents	
-	SECTION 4: RFQ Declaration and Breach of Law Form	
-	Valid and original, or a Certified copy, of your entity's B-BBEE Verification Certification	
	as per the requirements stipulated in Annexure A: B-BBEE Claims Form	
	Note: failure to provide these required documents at the closing date and time of the	
	RFQ will result in an automatic score of zero being allocated for preference	
-	Original valid Tax Clearance Certificate [Consortia / Joint Ventures must submit a	
	separate Tax Clearance Certificate for each party]	
-	Submit Health/Risk and Safety Plan	
-	List of plant and equipment relevant to the project	
-	Indicate how long it will take to complete the project - Delivery period	

In terms of paragraph 5.6 of the NATIONAL TREASURY SCM INSTRUCTION NO 4 OF 2017/2017, which became effective on 1 May2016, Transnet may only award bids to suppliers after verifying that the supplier is registered as prospective suppliers on the National Treasury Central Supplier Database.

Supplier Number	Unique Registration Reference	Yes/No

If Yes column above, please confirm registration by providing National Treasury Unique Vendor Number

If No column above, clease register your company on the National Treasury Central Supplier

Database and confirm registration by submitting National Treasury with "MAAA" Supplier Reference
number

CONTINUED VALIDITY OF RETURNABLE DOCUMENTS

The successful Respondent will be required to ensure the validity of all returnable documents, including but not limited to its Tax Clearance Certificate and valid B-BBEE Verification Certificate, for the duration of any contract emanating from this RFQ. Should the Respondent be awarded the contract [the Agreement] and fail to present Transnet with such renewals as and when they become due, Transnet shall be entitled, in addition to any other rights and remedies that it may have in terms of the eventual Agreement, to terminate such Agreement forthwith without any liability and without prejudice to any claims which Transnet may have for damages against the Respondent.

SECTION 3 QUOTATION FORM

1/We	- * * * *			
	I/We			

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 RFQ Terms and Conditions for the Supply of Goods or Services to Transnet; 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 correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

I/We further agree that if, after I/we have been notified of the acceptance of pa/our Quotation, I/we fail to deliver the said goods/service/s within the delivery lead-time can tee. Transnet may, without prejudice to any other legal remedy which it may have, cancel the order and ecover from me/us any expenses incurred by Transnet in calling for Quotations afresh and/or having to accept any less favourable offer.



Price Schedule

I/We quote as follows for the service required, on a "delivered nominated destination" basis, excluding VAT:

	DESCRIPTION	QTY	UNIT PRICE	TOTAL PRICE
Item 1				
Part A	Double unit 3 kV Substations			N
1	Olifants Substation	1		
2	Middelburg Substation	1		
3	Pan Substation	1	7	
4	Belfast Substation	1	? `	
5	Fairview Substation	1		
6	Wonderfointein Substation	1		
	Sub-Total for Part A (Exch Val)			
	·06-A			
	1, K			

Item 1	DESCRIPTION	QTY	UNIT PRICE	TOTAL PRICE
Item I				
Part B	Emergencies, commissioning and			
	oil sampling			
1	Double group 3 kV DC substations	3		
2	Single group 3kV DC substations	14		111
3	11kV Distribution Substation	3		
4	Minor repairs	14	OL/	
5	Oil sampling of transformer oil	28	4	
	Sub-Total for Part B (Excl. Vat)	C		
	"BELLIEN			

Item 1	DECCRIPTION	OTY	UNIT PRICE	TOTAL PRIOR
Part C	DESCRIPTION Single Group 3 kV Substation	QTY	UNIT PRICE	TOTAL PRICE
Part				
•	Forfar	1		
A	B 11	1		
	Bronkhosrspruit	•		
1		1		
2	Crown Douglas			
2		1		
_	Wakefield			
3		1		
	Witbank			
4		1		
	Uitkyk			
5		1		
	Derwent			
6		1	7	
	Arnot	1		
7				
	Sunbury			
8				
	Dalmanutha	1		
9				
	Machadodorp	1		
10				
	Niten	1		
11				
	Kliendan	1		
12				
	Wapacikloof	1		
13	- Page 1			
	Sterkloof	1		
14	Sec. Moor			
	Stoffberg	1		
15	Scottberg			
13	Erts	1		
16	LIG			
10	Louidit	4		
17	Larsdrift	1		
17				
	Larsdrift	1		

18				
	Hanmien	1		
19				
	Rossennekal	1		
20				
	Sub-Total for Part C (Excl. Vat)			
Part D	ELP Substations			
1	6.6 KV CTC Mini Substation			
2	6.6 KV Witbank Loco Mini Substation			7,,
3	6.6 KV Lydenburg Mini Substation		4	
	Sub-Total for Part D (Excl. Vat)		0/	
	GRAND TOTAL FOR PART A, B, C & D (Excluding VAT)	~(2	

Delivery Lead-Time fro	dat	e of purchase order :	[days/weeks]
(How long it	vill ca	ke the respondent to comple	ete the whole project)

Notes to Prich q:

- a) All Prices must be quoted in South African Rand, exclusive of VAT
- facilitate like-for-like comparison bidders must submit pricing strictly in accordance with this price schedule 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.

By signing this Quotation Form the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar, and agrees, with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof, including but not limited to the documents stated below and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed properly to take it into account for the purpose of calculating tendered prices or otherwise:

- 1. Specifications and drawings included in this RFQ if applicable; and
- 2. The following documents all of which are available on Transnet's website or upon request:
 - 2.1. General Bid Conditions;
 - 2.2. Standard RFQ Terms and Conditions for the Supply of Goods or Services to Transnet;
 - 2.3. Supplier Integrity Pact;
 - 2.4. Non-disclosure Agreement; and
 - 2.5. Vendor Application Form and all supporting documents (first time vendors only)
 Alternatively, for all existing vendors, please provide vendor number(s) here:

Transnet Operating Division	Unique Vendor Nur ber	Yes / No
Transnet Group	, 0	
TFR, etc.		

In the Yes/No column above, please confirm that all the information e.g. company address and contact details, banking details etc. are still correct as at the time of allocation of the vendor number(s). Alternatively, Respondents are required to provide the updated information with their bid submission.

ADDRESS OF WITNESSES ADDRESS OF WITNESSES	SIGNED at on this da	y of	_ 20
Name	SIGNATURE OF WITNESSES	ADDRESS OF WITNESSES	
Name SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE: NAME:			
Name SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE: NAME:			
NAME:			
		VE:	_
DESIGNATION:	NAME:		
	DESIGNATION:		

SECTION 4

NAME C	OF ENTITY:				
We				do hereby c	ertify that:
1.	Transnet has supplied applicable] which were				ll questions [a
2.	we have received all in Quotation [RFQ];	formation we d	eemed necessary for t	he completion of	this Request fo
3.	we have been provided all relevant information Employees, and has h diligence of Transnet's Transnet will therefore related adjustment to incorrect assumptions n	relevant to the ad sufficient tin operations and not consider opricing, service	Supply of the Goods as me in which to condu I business requirement or permit any pre- levels or any other pr	well as Transnet act and purform at the stand assets use the purfor velocities with the standard conditions and the standard conditions are standard conditions.	information ar a thorough du ed by Transne rification or ar
4.	at no stage have we re from Transnet sources, contact(s) as nominated	other than info	rm tion formally receiv		
5.	we are satisfied, insofar by Transnet in issuing this RFQ have been con	chis RFQ and an	e requirements reques	ted from Bidders i	•
6. 7	furthermore, we declare exist [deleth as applied our entity, and an employ may be involved in the following the control of the control is / is not [delete as a	ble] between a byee or board mevaluation and/out that an owner a	an owner / member / onember of the Transnet or adjudication of this Boundary / member / director / p	director / partner t Group including id. partner / sharehole	/ shareholder of any person when the der of our entite the der our entit
8.	If such a relationship as the following section:				
	AME OF OWNER/MEMBER ER/SHAREHOLDER:	/DIRECTOR/		ADDRESS:	
			relationship	with	

[Failure to furnish complete and accurate information in this regard will lead to the disqualification of a response and may preclude a Respondent from doing future business with Transnet]

9. We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet [other than any existing and appropriate business relationship with Transnet] which could unfairly advantage our entity in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

BREACH OF LAW

10. We further hereby certify that *I/we have/have not been* [delete as applicable] 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 offences or misdemeanours, e.g. traffic offences. This includes the imposition of an administrative fine or penalty.

Where found guilty of such a serious breach, please dicclose

NATURE	OF	BREACH
DATE OF BREACH:		
Furthermore, I/we acknowledge that T	ransnet SOC Ltd reserv	es the right to exclude any
Respondent from the bidding placess, sh	nould that person or entit	y have been found guilty of a
serious breach of law, tribulal or regulator	ory obligation.	

SIGNED at	on this day of 20
For and on behalf of	AS WITNESS:
duly authorised kereto	
Name:	Name:
Perities	Position:
Signature:	Signature:
Date:	Registration No of Company/CC
Place:	Registration Name of Company/CC

Section 5: SUPPLIER DECLARATION FORM

Respondents are to furnish the following documentation and complete the Vendor Application Form below:

- Original cancelled cheque OR letter from the Respondent's bank verifying banking details [with bank stamp]
- 2. **Certified copy** of Identity Document(s) of Shareholders/Directors/Members [where applicable]
- **3. Certified copies** of the relevant company registration documents from Companies and Intellectual Property Commission (CIPC)
- 4. Certified copies of the company's shareholding/director's portfolio
- 5. **Original** letterhead confirm physical and postal addresses
- 6. **Original** valid SARS Tax Clearance Certificate [RSA entities only]
- 7. Certified copy of VAT Registration Certificate [RSA entities only]
- 8. **A valid and original** B-BBEE Verification Certificate / sworn affidavit **r certified copy** thereof meeting the requirements for B-BBEE compliance as per the B-BBEE Codes of Good Practice; **Certified copy** of valid Company Registration Certificate [if applicable]

Note: No agreement shall be awarded to any South African Respondent whose tax matters have not been declared by SARS to be in ord

Company Trading	Name		·()·				
Company Register	ed Name						
Company Registra	tion Number Or	ID Number If A S	Sole Proprietor				
Form of entity	CC	Trest	Pty Ltd	Limited	Partnership	Sole P	roprietor
How many year company been in							
VAT number (if re	gista ed)						
Company Teleph	ne Number						
Company Frx N In	her						
Company E-Ma LA	ddress						
Company Website	Address						
Bank Name			Branch code	n & Brand	ch		
Account Holder			Bank numbe	accou er	nt		
Postal Address							
i ostai Addi C33						Code	
Physical Address							
Thysical Address						Code	

Contact Person								
Designation								
Telephone								
Email								
Annual Turnover Ran	ge (Last Fir	ancial Year)	< R5 Million	n	R5-35 million		> R35 million	
Does Your Company Provide			Products		Services		Both	
Area Of Delivery			National		Provincial		Local	
Is Your Company A P	ublic Or Pri	ate Entity		•	Public		Private	
Does Your Company	Have A Tax	Directive Or IR	RP30 Certificat	ie .	Yes		No	
Main Product Or Serv	rice Supplied	I (E.G.: Station	ery/Consulting	g)				
					_			
BEE Ownership De	tails							
% Black		% Black	women		% Disable	ed person/s	5	
Ownership		ownership			ow ership			
Does your company I	nave a BEE	certificate		Yes		No		
What is your broad b	ased BEE st	atus (Level 1 to	o 9 / Unknow	U	•			
How many personnel	does the fi	m employ	Port	nent		Part time		
Transnet Contact Per	son							
Contact number								
Transnet operating d	ivision							
Duly Authorised To	Sign For	nd on Behal	f Of Firm / 0	Organis	ation			
Name Designation								
Signature Date								
Stamp And Cight cure Of Commissioner Of Oath								
Name					Date			
Signature					Telephone			

SECTION 6: CERTIFICATE OF ATTENDANCE OF SITE MEETING / RFQ BRIEFING

It is hereby certified that –	
1	
2	
Representative(s) of	name of entity]
attended the site meeting / RFQ briefing in respect o	proposed Services to be supplied in terms of
this RFQ on20	
TRANSNET'S REPRESENTATIVE	RESPONDENT'S REPRESENTATIVE
DATE	DATE

ANNEXURE A: B-BBEE PREFERENCE POINTS CLAIM FORM

This preference form contains general information and serves as a claim for preference points for Broad-Based Black Economic Empowerment [**B-BBEE**] Status Level of Contribution.

1. INTRODUCTION

- 1.1 A total of 10 preference points shall be awarded for B-BBEE Status Level of Contribution.
- 1.2 Failure on the part of a Bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System [SANAS] or a Registered Auditor approved by the Independent Regulatory Board of Auditors [IRBA] or an Accounting Officer as contemplated in the Close Corporation Act [CCA] together with the bid will be interpreted to mean that preference points for B-BBEE Status Level of Contribution are not claimed.
- 1.3 Transnet reserves the right to require of a Bidder, either before a Bid is a fidicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by Transnet.

2. GENERAL DEFINITIONS

- 2.1 "all applicable taxes" include value-added tax. p y as you earn, income tax, unemployment insurance fund contributions and skills development lexies;
- 2.2 **"B-BBEE"** means broad-based black economic expowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Akt;
- 2.3 **"B-BBEE status of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, sued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Acts
- 2.4 **"Bid"** means a virition of er in a prescribed or stipulated form in response to an invitation by Transnet to the provision of goods, works or services;
- 2.5 **"Broad-B. red Black Economic Empowerment Act"** means the Broad-Based Black Economic Expowerment Act, 2003 [Act No. 53 of 2003];
- 2.6 **corparative price"** means the price after the factors of a non-firm price and all unconditional accounts that can utilised have been taken into consideration;
- 2.7 "consortium or joint venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skills and knowledge in an activity for the execution of a contract;
- 2.8 "contract" means the agreement that results from the acceptance of a bid by Transnet;
- 2.9 "EME" means any enterprise with an annual total revenue of R5 [five] million or less as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total revenue of R10 [ten] million or less as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928;
- 2.10 **"firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs and excise

- duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.11 "functionality" means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.12 "non-firm prices" means all prices other than "firm" prices;
- 2.13 "person" includes reference to a juristic person;
- 2.14 "QSE" means any enterprise with an annual total revenue between R5 [five] million and R35 [thirty five] million as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total revenue of between R10 [ten] million and R30 [fifty] million as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928
- 2.15 "**rand value**" means the total estimated value of a contract. Solub Arrican currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- 2.16 **"subcontract"** means the primary contractor's assigning or leasing or making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract:
- 2.17 **"total revenue"** bears the same mraning as igned to this expression in the Codes of Good Practice on Black Economic Empowerment, ssued in terms of section 9(1) of the Broad-Based Black Empowerment Act and promolgated in the Government Gazette on 9 February 2007;
- 2.18 **"trust"** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 3. "trustee" means any person, including the founder of a trust, to whom property is bequeathed in ADJUDICATION VSIDS A POINT SYSTEM
- 3.1 The Bidder obtaining the highest number of total points for the evaluation criteria as enumerated in Section of the RFP will be awarded the contract, unless objective criteria justifies the award to mother bidder.
- 3.2 Preserence points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3 Points scored will be rounded off to 2 [two] decimal places.
- 3.4 In the event of equal points scored, the Bid will be awarded to the Bidder scoring the highest number of preference points for B-BBEE.
- 3.5 However, when functionality is part of the evaluation process and two or more Bids have scored equal points including equal preference points for B-BBEE, the successful Bid will be the one scoring the highest score for functionality.
- 3.6 Should two or more Bids be equal in all respect, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

4.1 In terms of the Preferential Procurement Regulations, 2011, preference points shall 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 [Maximum 10]	Number of Points [Maximum 10]
1	20	10
2	18	9
3	16	8
4	12	5
5	8	4
6	6	3
7	4	V
8	2	1
Non-compliant contributor	0	0

- 4.2 Bidders who qualify as EMEs in terms of the 2007 version of the Codes of Good Practice must submit a certificate issued by an Accounting Officer at centemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EME's with B-BBEE Status Level Certificates.
- 4.3 Bidders who qualify as ENEs in texms of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928 are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R10 million or less and the entity's Level of Black ownership.
- In terms of the 2007 version of the Codes of Good Practice, Bidders other than EMEs must submit their on inal and valid B-BBEE status level verification certificate or a certified copy thereof, capital fating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- In terms of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928, Bidders who qualify as QSEs are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R50 million or less and the entity's Level of Black ownership. Large enterprises must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 4.6 A trust, consortium or joint venture will qualify for points for its B-BBEE status level as a legal entity, provided that the entity submits its B-BBEE status level certificate.
- 4.7 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate

bid.

- 4.8 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialised scorecard contained in the B-BBEE Codes of Good Practice.
- A person will not be awarded points for B-BBEE status level if it is indicated in the Bid documents that such a Bidder intends subcontracting more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not qualify for at least the same number of points that such a Bidder qualifies for, unless the intended subcontractor is an EME that has the capability and ability to execute the subcontract.
- A person awarded a contract may not subcontract more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.
- 4.11 Bidders are to note that in terms of paragraph 2.6 of Statement 000 of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36.28, any representation made by an entity about its B-BBEE compliance must be supported by suitable evidence or documentation. As such, Transnet reserves the right to request auch evidence or documentation from Bidders in order to verify any B-BBEE recognition claimed.

5. B-BBEE STATUS AND SUBCONTRACTING

5.1	Bidders who claim	points in	respect	of -	-BBL €	Status	Level	of	Contribution	must
	complete the follow	ing:								

		▼		
B-BBEE Status Level of Contributor		=	_ [maximum of 10 poi	nts

Note: Points claimed in respect of this paragraph 5.1 must be in accordance with the table reflected in paragraph 4.1 above and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit in the case of an EME or QSE.

5.2 **Subcontracting:**

Will an portion of the contract be subcontracted? YES/NO [delete which is not applicable]

If YES indicate:

	What percentage of the contract will be subcontracted?	%
(ii)	The name of the subcontractor	
(iii)	The B-BBEE status level of the subcontractor	
(iv)	Is the subcontractor an EME?	YES/NO

5.3	Declaration	with regard	l to Company	y/Firm
-----	-------------	-------------	--------------	--------

(1)	Name of Company/Firm
(ii)	VAT registration number
(iii)	Company registration number

(iv) Type of Company / Firm [TICK APPLICABLE BOX]

☐ Partnership/Joint Venture/Consortium

	☐One person business/sole propriety
	□Close Corporations
	□Company (Pty) Ltd
(v)	Describe Principal Business Activities
(vi)	Company Classification [TICK APPLICABLE BOX]
	□Manufacturer
	□Supplier
	□ Professional Service Provider
	□Other Service Providers, e.g Transporter, etc
(vii)	Total number of years the company/firm, as been in business
ARAT	TON

BID DECLARATION

I/we, the undersigned, who warrants that have is duly authorised to do so on behalf of the company/firm, certify that points claimed base on the B-BBEE status level of contribution indicated in paragraph 4 above, qualifies the company/firm for the preference(s) shown and I / we acknowledge that:

- The information turnished is true and correct.
- In the every of a contract being awarded as a result of points claimed as shown in part graph 6 sove, the contractor may be required to furnish documentary proof to the etist ction of Transnet that the claims are correct.
- f the B-BBEE status level of contribution has been claimed or obtained on a fraudulent sis or any of the conditions of contract have not been fulfilled, Transnet may, in addition to any other remedy it may have:
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) restrict the Bidder or contractor, its shareholders and directors, and/or associated entities, or only the shareholders and directors who acted in a fraudulent manner, from obtaining business from Transnet for a period not exceeding 10 years, after the audi alteram partem [hear the other side] rule has been applied; and/or

(e)	forward the matter for crir	ninal prosecution.	
WITNESSES:			
		_	_
Respondent's Signature		Dute a company start	Ì

1.	
	SIGNATURE OF BIDDER
2.	
	DATE:
	COMPANY NAME:
	ADDRESS:

IN COPY ONLY

ANNEXURE B: SCHEDULE OF PLANT, EQUIPMENT AND TEAMS

Schedule of major plant and equipment to be used in the execution of this agreement in terms of the Agreement Conditions and specifications. The respondent must state which plant is immediately available and which will be ordered for and plant to be acquired for.

				3	
			0	7	
<u>Plant on or</u>	der and which w	vill be available for	work tendered for	:	
),		
		11			
District to 1.					
Plant to be	to quired for the	e work tendered for	: :		

ANNEXURE C- REFERENCES

Please indicate below the company names and contact details of existing customers whom Transnet may contact to seek third party evaluations of your current service levels:

Company Name	Nature of work	Value of	Contact	Contact details Y	ear
		work	person	e.g. telephone c	ompleted
				numbers	
) `		
		(>			
	K *				
· ·	~				

ANNEXURE D

MINIMUM CONTENTS FOR SAFETY HEALTH/RISK AND ENVIRONMENTAL PLAN AND THE EQUIPMENTS RELEVANT TO THE PROJECT

The Respondents are required to submit the Health/Risk and Safety Plan relevant for Cleaning and Gardening project and shall take note of the following when compiling Health/Risk and Safety Plan.

INDEX

1. Contractor SHEQ Policy Statement

- 2. List of Contractor Employees
- 3. Project Management
- 3.1. Notification of Construction Work (Construction Regulation 3, Appexure A)
- 3.2 Registration with WCC
- 3.4. SHEQ Plan Review
- 3.5. Agreement with Mandataries (Section 37(2) of ONS Act)
- 3.6. Appointments of Contractor
- 3.7. Site Organisation
- 3.7.1. Assignment of Duties
- 3.7.2. Construction Work Supervisor Construction Regulation 6)
- 3.7.3. Subordinate Construction Work Supervisor (Construction Regulation 6)
- 3.7.4. Construction Safety Offic (Construction Regulation 6(7)
- 3.7.5. List of subcontractors already appointed List to be revised at least monthly
- 3.7.6. Health and Santy Representative (Section 17 of OHS Act)
- 3.7.7. Scafforc Inspector (Construction Regulation 8)
- 3.7.8. Portage Fire Equipment Inspector

4. Incident Management

- 4.1. Health, Safety and Environmental Performance Statistics
- 4.2. Incidents and or injuries
- 4.2.1. Reporting
- 4.2.2. Recording
- 4.2.3. Investigation
- 4.2.4. Medical Surveillance and certificate of fitness
- 4.2.5. Occupational Diseases

5. Audits

- 5.1. Legal Compliance Audits
- 5.1.1. Audit Report
- 5.1.2 Frequency of Audits
- 5.1.3. Findings and Analysis
- 5.1.4 Corrective Action

6. Substance Abuse Testing

6.1 Proof of testing

7. Logbooks and Registers

- 7.1. Electric Equipment / Tools Register Portable
- 7.2. Fire fighting appliance Register Portable
- 7.3. Personal Protective Equipment and Clothing
- 7.4 Schedule of Plant (E4D)
- 7.5 Other

8. Risk Management

- 8.1. Task descriptions
- 8.2. Risk Identification, Analysis, Mitigating Steps, Monitoring Steps and Review Plan
- 8.3. Risk Assessment (Construction Regulation 7)
- 8.4 Occupational Hygiene Surveys e.g Noise, Dust etc

9. Education and Training

- 9.1. Induction training Construction Regulation 7(9)
- 9.2. Site Specific raining
- 9.3. Certificates of Competence e.g operator licences, welding certificates, etc
- 9.4 Firs and training and Equipment

10. Emergency Planning – Evacuation plan

- 10.1. Client procedure
- 10.2. Site Procedure
- 10.3 Emergency response numbers

11. SHE Communications

- 11.1 Safety/Toolbox talks
- 11.2 Incident Recall

12. Safe Working Procedures

- 12.1 Method Statements
- 12.2 Safe Operating Procedures
- 12.3 Task/Job observations

13. Fall Protection Plan

- 13.1 Documented fall protection plan
- 13.2 Rescue Plan
- 13.3 Training/Certification
- 13.4 Fall arrest and protection equipment

14. Personal Protective Equipment and Clothing

- 14.1 PPE required
- 14.2 PPE proof of issue

15. Project security

- 15.1 Security risks identified
- 15.2 Access control

16. Environmental Management Plan

Note: TFR will obtain Environmental authorisation (EIA and EMP) and permits from the relevant authority (when necessity) prior to commencement of the project (e.g Construction)

Provide procedure of the following:

- 1. Control of
- 2. Noise Pollution Control
- 3. Waste management
- 4. Environmental Incident Management (Sect 30 NEMA)
- 5. Contamination of surface and underground water
- 6. Soil Contamination
- 7. Storm Water Drainage
- 8. Environmental Cleanup and Rehabilitation
- 9. Environment monitoring

18. THE LIST OF PLANT AND EQUIPMENT

- 3 Phase Generator, Hand tools, Extension leads, Test Leads,
- Null Balance Digital Earth Megger
- 10kV Digital Megger
- 4 kV DC Hi Pot Test Set
- Primary Injection Test set variable 500/1000 Amps.
- Secondary Injection Test set, variable from 0 to 100 Amps
- AC / DC Injection Test Set, 200A, variable 0 to 250V
- -- Digital Millisecond Timer, 999 seconds
- 2 x Multimeters Digital (R.M.S.)
- DC Millivolt Injection Set, 100mV
- IN CORY ONLY - Bucholtz Pump (air compressed pump or bicycle pump)

ANNEXURE E - CLAUSE BY CLAUSE COMPLIANCE WITH SPECIFICATION

Testing and commission of 3kv dc traction and 11kv distribution substations on routine and as an when required basis requirements.

11. Description of Work

Complies / does not comply

11.1. Commissioning tests:

- 11.1.1. Complies / does not comply
- 11.1.2. Complies / does not comply
- 11.1.3. Complies / does not comply
- 11.1.4. Complies / does not comply
- 11.1.5. Complies / does not comply
- 11.1.6. Complies / does not comply
- 11.1.7. Complies / does not comply
- 11.1.8. Complies / does not comply
- 11.1.9. Complies / does not comply
- 11.1.10. Complies / does not comply
- 11.1.11. Complies / does not comply

11.2. Routine tests:

- 11.2.1. Complies / does not comply
- 11.2.2. Complies / does not comply
- 11.2.3. Complies / does not comply
- 11.2.4. Complies / does lot omply
- 11.2.5. Complies does not comply
- 11.2.6. Comples / does not comply
- 11.2.7. Complies / does not comply
- 11.2.8. Complies / does not comply
- 11.2.9. Complies / does not comply
- 11.2.10. Complies / does not comply
- 11.2.11. Complies / does not comply
- 11.3. Complies / does not comply
- 11.4. Complies / does not comply
- 11.5. Complies / does not comply
- 11.6. Complies / does not comply
- 11.7. Complies / does not comply
- 11.8. Complies / does not comply

- 11.9. Complies / does not comply
- 11.10. Complies / does not comply

11.11. DC TRACTION & DISTRIBUTION SUBSTATIONS (ELECTRICAL TEST SHEETS):

12. **GUARANTEE AND DEFECTS**

- 12.1 Complies / does not comply
- 12.2. Complies / does not comply
- 12.3. Complies / does not comply
- 12.4. Complies / does not comply
- 12.5. Complies / does not comply
- 12.6. Complies / does not comply
- 12.7. Complies / does not comply
- 12.8. Complies / does not comply

12.9. TENDERING PROCEDURE

- 1. Complies / does not comply
- 2. Complies / does not comply
- 3. Complies / does not comply
- 4. Complies / does not comply
- 5. Complies / does not comply
- 6. Complies / does not comply
- 7. Complies / does not comply
- 8. Complies / does not comply
- 9. Complies / does not comply
- 10. Complies Loos in Comply
- 11. Complies a des not comply

12.10 Constraints on how the *Contractor* Provides the Works

- 12.10.1 Complies / does not comply
- 12.10.2 Complies / does not comply
- 12.10.3 Complies / does not comply
- 12.10.4 Complies / does not comply
- 12.10.5 Complies / does not comply
- 12.10.6 Complies / does not comply

Respondent's Signature

Date & Company Stamp

- 12.10.7 Complies / does not comply
- 12.10.8 Complies / does not comply
- 12.10.9 Complies / does not comply
- 12.10.10 Complies / does not comply
- 12.10.11 Complies / does not comply
- 12.10.12 Complies / does not comply
- 12.10.13 Complies / does not comply
- 12.10.14 Complies / does not comply
- 12.10.15 Complies / does not comply
- 12.10.16 Complies / does not comply
- 12.10.17 Complies / does not comply
- 12.10.18 Complies / does not comply
- 12.10.19 Complies / does not comply
- 12.10.20 Complies / does not comply

13.1. QUALITY AND INSPECTION

- 13.1.1 Complies / does not comply
- 13.1.5 Complies / does not comply
- 13.1.6 Complies / does not complex
- 13.1.7 Complies / does not contain

14.2. TRAINING

- 13.2.1 Complies / loes not comply
- 13.2.2 Complies Noes not comply
- 13.2.3 complies / does not comply
- 13.2.4 Complies / does not comply

15. SPECIFICATIONS

14.1. SOUTH AFRICAN NATIONAL STANDARDS:

- 14.1.1 Complies / does not comply
- 14.1.2 Complies / does not comply

Transnet Request for Quotation No. ERAC-WGO-MM62-22306 **Rail Network Maintenance BBF 8999 Version 2 3 kV DC Traction Substations Test Sheet FP04 Auxilliary Xformer: Current Xformers, Overload** TRANSNET Relay and Buccholtz relay. freight rail Substation DC Earth Leakage Protection. **Substation Routine Testing:** Commissioning: CT Mag curve Aux.Xformer **CT Primary CT Secondary** Full Load **Current Rating** Current Rating Current Marked Marked Volts **Red Amps** White Amps Blue Amps Thermal Overload Setting la,b,c > = 1 xFull load/CT Primary Tripping time (sec) la,b,c > setting on relay Red White Blue la,b,c >xt setting from relay curve Sec. Injected current @ 2 X FL Ac ual Instantaneous Overload Setting la,b,c >>=3 xFull load/CT Primary la,b,c >> setting on relay Tripping time (sec)

Output Relays		Element	No.		Current	settings
	: la> & la>>	2 lb> & lb>>	3 lc>& lc>>	4 lc>>	Element 1	Pri. Sec.
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5		Element 2	Pri. Sec.
Start • • • • • • • • • • • • • • • • • • •	00000	0 0 0 0 0	0 0 0 0 0	Disabled	Element 3	Pri. Sec.
Trip	10000	1 0 0 0 0	1 0 0 0 0		Element 4	Disabled
Aux. Xformer Bu	ıccholtz: Relay trips	PCB giving Lock	out & Indicatio	n with	cc of	air in relay.
DC Earth Leakag	e Protection	Tested by DC cu	rrent injection			
Relay operates a	at amps trij	oping PCB and HS	SCB's to lockou	t with flag indi	cation from th	e following:
Rectifier Frame	Wave Filter Equip	Reactor Base	Chequer plates	HSCB Cells	Control Panels	UVR Base
Datta w. abausa u	Talagantual Danal	Anode wall	Positive			
Battery charger	Telecontrol Panel	Plates	Isolator			
Tested by:	Name:		Signature:		Date:	
Witnessed by: N	lame:		Signature:		Date:	

Calculated

Actual

Red

White

Blue

la,b,c >>xt setting min on relay

la,b,c >> xt setting on relay pm

Sec. Injected current @ 4X F.

Rail Net	work Ma	intenanc	e								BBF9	000 Vers	ion 3
3 kV DC T	raction S	ubstation	s Test She	et: Main	and Auxil	liary Trans	sformer p	rotection					
Current t	ransform	ers Ratio	and Magr	netisation	Curves. C	Overload re	elays:The	rmal & Ins	tantaneo	us.		TRANS	MET
AC earth	Leakage I	Protection	ո. Buchho	ltz, Overt	emperati	ure, Pressu	re Relief	Device.					MEI
Substatio	n:			Single	e/A/BU	nit	Routine	: Com	missionii	ng:		freight rail	
CT Ratios													
Main Overd	current/Met	ering IFL:	=	Auxilliary (Overcurrent	I _{FL} =		AC earth Lea	akage		Winding Ov	ertemp	
Marked	N	leasured		Marked	М	easured		Marked	Measur	ed	Marked	Measu	red
Magnetizat				Daniu Danto			a 1111			40	.1	W	
Main Overo	Red	White	Blue	Main Mete Volts	Red	Blue	Volts	Overcurrent Red	Blue	AC earth Le Volts	Amps	Winding O Volts	Amps
VOILS	neu	Willie	Dide	VOILS	neu	Biuc	VOICS	neu	Dide	VOILS	7111105	Voits	7111p3
Overcurrent	t Relay elem	ents	Relay make	s and types.	Mains:			Auxilliary :			C Earh Lea	kage:	
Main therm	-	lset= xlr			Main Instan	itaneous	lset= xIn		0	AC Eart Le			et
Operating	Multiple	Amps	Specified	Actual	Operating	Multiple	Amps	Specified	Actual		Primary Circ		Primary
time	2 x I FL	Allips	Specifica		time	3.5 x I FL	Amps	эрсстси		Breaker to	ockout and i	indication	trip amps
in seconds	3 x IFL				in seconds	4 x I FL					CT bases,Ma		
Trin PCR giv	ing indication	ın·	Voc	/No	Trin PCB giv	ing indication	١٠	Yes,	/N	ti nsforme	r Tank & Aux	illiary	
Auxilliary th						stantaneous					PCB stri	ıcture	
			Tset=	Actual		Multiple			At ual	Test for	CT stru		
Operating time	Multiple 2 x I _{FL}	Amps	Specified	Actual	Operating time	3.5 x I FL	Amps	Specified	Aduati	parallel paths to	Main Tran		
in seconds	ZXIFL				in seconds	3.3 X IFL		1		main earth	Aux trans		
Trin PCR giv	ing indication	ın·	Vos	/NIO	Trin PCR giv	ing indicatior).	Voc	/No	from:	fen		
TIPT CD giv	ing marcatic	,,,,	res	/No	пртсвы	mg marcation		Yes	INO				
	ormer Prote												
Buchholtz: F	Relay trips P	CB giving Lo	kout & Indic	cation with	cc	of air.	Pre sure Re	lief Device:	Simulation	trips PCB giv	ing Lockout	& Indicatio	n. Yes/No
Oil Over ten	np : Relay tri	ps PCB givin	g Indication	at	°C dail setti	ng. Wi di	ing Over ter	າ p : Relay trip	s PCB giving	g Lockout & I	ndication at	°C	dail setting.
Auxilliary Tr	ransformer F	Protection											
Buchholtz: F	Relay trips P	CB giving Lo	ckout & India	cation with	сс	of all							
Tested by: N	Name:		Signature:		Wittessed	by: Name:			Signature:			Date:	
						•							
			•	Λ									
				<i>\</i>									
				7 (
			•										
		0											

kV DC Traction Sul C Earth Leakage, N kV DC Undervolta ubstation: C Earth Leakage Protecti	letering,		t: 3 kV [C Protection							
ubstation: <mark>C Earth Leakage Protecti</mark>	ge Relay.			ment, Diode	& Rectifie		nperature.			TRANSN	ΕΓ
C Earth Leakage Protecti		Battery L	Indervol	tage Relay.						freight rail	
					Rou	tine :	Commissioni	ng:		1 resigner an	
alau tastad ta anarata	on	Tested by D	C current i	njection							
elay tested to operate	at	amps trippi	ng PCB and	HSCB's to lock	out with indica	ation from th	ne following:				
Control Rectifier screen	Rectifier Base	Anode Wall Plates	Positive Isolator	LV Distribution board	Wave Filter Room	Chequer plates	HSCB Cells	Battery charger	Telecontrol Panel	3 kV DC UVR Base	3 kV DC Busbar Chamber
IN DOMESTIC				ALA DC Ammuni			Maria Filtan Fau	: -			
kV DC Voltmeters	0/ [##0#	Dee leelekee	0/ [##0#	4 kA DC Amme		0/ [##0#	Wave Filter Equ		12 +b	10 +b	24+b
ubstandard Rectifier 1000	% Error	Pos.Isolator	% Error	Indication 1000	Mv	% Error	Harmonic	6 th (300 hz)	12 th (600 hz)	18 th (900 hz)	24 th (1200 hz)
2000				2000			Frequency	(300 112)	(600112)	(900 112)	(1200112)
3000				3000			Capacitance uF Inductance mH				
4000				4000			Coil Spacing mm				
4000	<u> </u>			4000			Discharge Resisto	ır.	kOhm		Fuse:
ectifier Protection							_ is change incols to				
ectifier Pressure tested	on Commiss	ioning at 10.	5 kV AC fo	r 60 sec.	Passed	/Failed					
ectifier diode Monitorin		Ī		imulation test		,	<u> </u>	_			
iode failure indication s					Yes/No						
ectifier temperature cor		· ·		imulation test	<u>100/110</u>				7		
ans switch on at 50 ° C:	itioi	rested by it	bic optics	imulation test	Yes/ No	Drimon, Ciro	uit Breaker trip	90°C ;+b	ndication:		Vas/Na
							<u>_</u>			1	Yes/No
an failure trip Primary Ci					-		n at 700 amps lo			olt injection	Yes/No
ectifier Attenuation Prof	tection:	PCB trips to	lockout w	ith indication by	simulating st	triker pin fus	e operation on bo	oth 1.5 kV ar	nd 3kV circuits		Yes/No
V DC Undervoltage Pro	tection	Tested by a	pplied DC	High Voltage							
						- UCCDI- ···i	1 1				
elay tested to pick up at		volts and di			volts trippin						
attery undervoltage pro		,			nd dropout at		volus tripping P			tion and Locko	out.
hase Fail Protection:	Relay tested	to trip PCB (giving lock	out and indicati	on on simulat	ion purse fa		Yes / No			
ested by: Name:		Signature:			Witnessed	/: Nam :		Signature:			Date:
	.11	2 2 2	S.								

Signal and Distibution Substations Test Sheet Bus coupler VCB Frame Leakage Protection. Current Transformer Ratio and Mag Curves. Zone Relay intertripping. Insulation Resistance and Pressure Tests. Voltage Transformer and Indication tests. Battery Undervoltage Protection. Earth Resistance Measurement Substation: Panel Nov. Designation: Routine: Commissioning:	Rail Ne	twork N	/laintena	ance									BBF9	296 Vers	ion2
Substation: Panel No: Designation: Routine: Commissioning: Teight follows	Frame Le	akage Pro	tection. C	urrent Tra	nsformer F	Ratio and	Mag Cui				oping.		V	TRANS	NEC
Current Transformers	Battery L	Indervolta	age Protec	tion. Ear	th Resistan	nce Meas	urement								1451
CT Ratio	Substatio	on:			Panel No:	:	Designa	tion:			Routine: Cor	mmissioning:		freight rail	
Mag curves Volts Amps Amps Amps Amps Ltrip (amps) Volts Amps Amps Amps Amps Ltrip (amps) Volts Amps Amps Amps Amps Amps Ltrip (amps) Volts Amps A	Current Tra	ansformers	Zone 1	Zone 2	Zone 3	Frame	Leakage	Make/Typ	e of relay:	:		Tested by Pri/Sec	:/TW		
Mag curves	CT Ratio	Marked				Zo	nes	Zone 1	Zone 2	Zone 3	Parallel paths test	Zone 1 to Zo	ne 2		
Mag curves Volts Amps Amps Amps I trip (amps) Zone 2 to Zone 3 Insulation Insulation Resistance Insulation Resistance Insulation Insu	Critatio	Measured				1	set =				at Iset amps	Zone 1 to Zo	one 3		
Intertripping tests	Mag curves	Volts	Amps	Amps	Amps	I trip	(amps)				·	Zone 2 to Zo	one 3		
Intertripping tests Zone 2 to Main Earth Zone 3 to Main Earth Zone 3 to Main Earth Zone 1 to Zone 2 Zone 3 to Main Earth Zone 1 to Zone 2 Zone 1 to Zone 2 Zone 1 to Zone 2 Zone 1 to Zone 3 Zone 2 to Main Earth Zone 1 to Zone 2 Zone 1 to Zone 2 Zone 1 to Zone 2 Zone 1 to Zone 3 Zone 2 to Zone 3 Zone 2 to Main Earth Zone 1 to Zone 2 Zone 1 to Zone 3 Zone 2 to Zone 3 Zone 2 to Main Earth Zone 1 to Zone 2 Zone 2 to Main Earth Zone 1 to Zone 2 Zone 2 to Main Earth Zone 1 to Zone 2 Zone 2 to Main Earth Zone														ı	
						Last a state	-144-	1							
Zone 2 tripping											Resistance				
Insulation Resistance Tests HiPot test @ 18 kV for 60 sec(VTs 0 to VT apd kV Meter reading at 11kV															
Insulation Resistance Tests Megger tests at 2500 volts HiPot test @ 18 kV for 60 sec(VFS on VT and kV Meter reading at 11kV															
Insulation Resistance Tests Megger tests at 2500 volts HiPot test @ 18 kV for 60 sec(NS on 1) VT angl KV Meter reading at 11kV						Zone 3	птрриц	Zone 1	Zone Z	Zone 3			•		
Hipot test @ 18 kV for 60 sec(VCS on V) VT and kV Meter reading at 11kV				I	·							2011e 2 0 20	лте <u>э</u>	<u>I</u>	
Red White Blue Red White Blue Red White Blue Red White Blue Red White Red+Blue+Earth Blue White Red+Blue+Blue White Red+Blue+Blue White Red+Blue+Blue White Red+Blue White Red+Blue White Red+Blue White Red+Blue White Red+Blue W	Insulation R	esistance Te	sts												
White Earth Blue Earth Blue Red White Red+Blue+Earth Blue White Red+Blue+Earth Blue White Red+Ear N MA Blue White+Red+Earth Blue White Red+Blue+Earth MA Blue White Red+Blue+Earth Blue White Red+Blue+Earth MA Blue White Red+Blue+Earth Blue White Red+Blue+Earth MA Blue White Red+Blue+Blue+Blue+Blue+Blue+Blue+Blue+Blue	Megger test	ts at 2500 vol	ts					_		HiPot tes	t @ 18 kV for 60 sec(\	(T's o 1) VT and KI	/ Meter rea	ding at 11kV	
Blue Earth Blue Red Blue White Ked+Earth MA Blue White Hed+Earth MA Blue White Hed Hed Hed Hed Hed Hed Hed Hed Hed He		Red	Earth			Red	White			Red		nA <u>red</u>	White+B	lue+Earth	
Battery undervoltage protection: Relay tested to pickup atand dropout at					1			1							
Earth Resistance test: Resistance between spikes: ohms Resistance centre spikes and Substation Earth ohms General Remarks Tested by: Name Signature: Witn seed by: Name: Signature: Date:		Blue	Earth			Blue	кеа	<u>l</u>		Blue	White-Red+Eak	mA Blue	wnite+k	ed+Earth	
General Remarks Tested by: Name Signature: Witnessed by: Name: Signature: Date:	Battery und	lervoltage pr	otection:		Relay tested	to pickup a	ıt	and drop	out at		Volts tripping " . CE	B's with indication	and Lockout	t	
General Remarks Tested by: Name Signature: Witnessed by: Name: Signature: Date:					<u> </u>			<u> </u>						ļ.	
Tested by: Name Signature: With Esed by: Name: Signature: Date:	Earth Resist	ance test:	Re	sistance bety	ween spikes:		ohms		Resistano	ce Jet ee	en sp. es and Substat	ion Earth	ohms		
Tested by: Name Signature: With Esed by: Name: Signature: Date:	General Rer	marks						1		igodot					
										11					
)					
	Tested by: I	Name			Signature:			Witnesed	l by: Nam	e:	Signatu	re:	Date:		
					Į.							-			
				2											

Protection Relays: Overload, Earth fault, Sensitive Earth Fault and Cable Protection. Transformer Protection	
Protection Relays: Overload, Earth fault, Sensitive Earth Fault and Cable Protection. Transformer Protection	ghtrail
Panel No: Designation: Routine : Commissioning:	uration
Protection Class 10P10	
Red White Blue Red	
Marked Marked Marked Marked Marked Marked Measured	nfiguration
Measured	nfiguration
Mag curves	nfiguration
LED 4 LED 5 LED 6 LED 6 LED 6 LED 6 LED 7 LED 7 LED 7 LED 8 LED 9	nfiguration
Continue	nfiguration
LED 6 LED 7 LED 7 LED 8 LED 9	nfiguration
Description	nfiguration
Polarities	nfiguration
Polarities Polarities Description Tested by Pri/Sec/TW Tested by Pri/Sec/TW Output relay Colspan="8">Output relay C	nfiguration
Protection Relays: Make/Type:	nfiguration
DMT (NI)	nfiguration
DMT (NI)	nfiguration
DMT (NI)	G
Operating time in seconds Multiple L25x Iset seconds Amps R to W R to B B to W Operating Multiple times in seconds Multiple Amps R to W R to B B to W B03 B03 B04 Carth Fault Elements Tested by Pri/Sec/TW Tested by Pri/Sec/TW Tested by Pri/Sec/TW Tested by Pri/Sec/TW Sensitive Earth Fault Sensitive Earth	
time in seconds 1.25 x lset seconds 1.25 x lset seconds 1.00 x lset seconds 803 804 Earth Fault Elements Tested by Pri/Sec/TW Tested by Pri/Sec/TW Tested by Pri/Sec/TW	
seconds 2.00 x lset seconds 6.00 x lset B04 Earth Fault Elements Tested by Pri/Sec/TW Tested by Pri/Sec/TW Tested by Pri/Sec/TW Pri/Sec/TW DMT (NI) I set= T set= Instantaneous I set= T set= Sensitive Earth Fault set=	
Tested by Pri/Sec/TW Tested by Pri/Sec/TW Tested by Pri/Sec/TW DMT (NI) I set= T set= Instantaneous I set= T set= Sensitive Earth Fault set=	
DMT (NI) I set= T set= Instantaneous I set= T set= Sensitive Earth Fault set=	fren a d
	Tset= E W to E B to
Operating Multiple Amps R to E W to E B to E Operating Multiple Am	E W to E B to
seconds 2.00 x lset seconds 6.00 x lset second second 1.25, set	
eeder Protection Solkor:Overall Fault setting Tested by Pri/Sec/TW Translay:Over 15 aut. setting Tested by Pri/Se	:/TW
Phases Expected % Local sub Local sub Distant sub. Distant sub. Distant sub. Prior Cable Phases Expected % Trip Amps m Amps Trip Amps m Amps Fault Current Relay Output Phases Relay Output Phases Phases	Pilot mAmp
Pilot Cable Trip Amps m Amps Trip Amps m Amps Fault Current Relay Output Loop Resistance T1+T2 Ohm R-E 22 R-E	PHOLIMAMIP
T1-E MOhm W-E 27.5 W-E	
Insulation Resistance T2-E MOhm B-E 37	
T1-T2 M0hm R-W 110	
W-B 110 W	
B-R 55 B-R	
Stability test by Primary injection Red to White in Loranse with Stort circuit in Distant sub	
Current injected: Amps mps in pln_ wile confirmed to be zero Yes No	
Transformer Protection	
	C dail setting.
Windin Over temperature: Relay trips VCB giving lockout & Indication at	°C dail se
Focted by: Name Signature: Withous Signature: Date:	
ested by Name Signature. Witnessed V. Name Signature. Date.	
Tested by: Name Signature: Witnessed v: Name: Signature: Date:	C a