

**TERMS OF REFERENCE FOR PRASA WESTERN CAPE CENTRAL LINE CORRIDOR: CAPE TOWN TO  
NOLUNGILE VIA MUTUAL TRAIN STATION - OHTE , TRACTION SUBSTATIONS AND PERWAY  
CONDITION ASSESSMENT INSPECTION**



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## 1. BACKGROUND

- 1.1. The Passenger Rail Agency of South Africa (PRASA) recently resumed train service on the Nyanga to Nolungile train station in July 2024. The line was not operational due to the theft and vandalism of the 3kV DC Overhead Traction Equipment (OHTE).
- 1.2. The OHTE was reinstated in the corridor. The Passenger Rail Agency of South Africa (PRASA) is currently operating both the Electric Multiple Unit (EMU) and Class ( 5M2A,10M3,10M5 and 8M) trains in the corridors.

## 2. STATEMENT OF INTENT

- 2.1. An inspection will be conducted in accordance with Section 33 (1)(a) and in compliance with Section 30(b) of the Railway Safety Regulator Act, Act no. 16 of 2002 (as amended).
- 2.2. The purpose of the Terms of Reference (TOR) document is to appoint a service provider to render specialist services in conducting an OHTE, Traction Substation and Perway infrastructure inspection from Cape Town Train Station to Nolungile via Mutual Train Station.
- 2.3. The service provider should have qualifications and extensive experience - in 3kV DC OHTE, Traction Substations and Perway railway infrastructure .
- 2.4. The objective of the OHTE, Traction Substations and Perway inspection from Cape Town to Nolungile via Mutual Train Stations is to:
  - a) verify whether the OHTE, Traction Substations and Perway infrastructure complies with the relevant legislation, and to
  - b) determine whether the OHTE, Traction Substations and Perway infrastructure conditions meet the required minimum operating standards.

## 3. MANDATE

- 3.1. The service provider is required to inspect the 3kV DC OHTE, Traction Substations, and Perway infrastructure, record findings made and report on the following:
  - (a) Whether the OHTE, Traction Substations and Perway infrastructure comply with the relevant legislation.
  - (b) Whether the OHTE, Traction Substations and Perway infrastructure conditions meet the required minimum operating standards.

- 3.2. There are thirteen (13) train stations between Cape Town to Nolungile Train Station, namely, Cape Town, Esplanade, Ysterplaat, Mutual, Langa, Bonteheuwel, Netreg, Heideveld, Nyanga, Philippi, Stock Road, Mandalay and Nolungile.
- 3.3. The substation scope of work for this project includes three (3) substations namely Nyanga, Langa and Modderdam substation plus two (2) tie stations namely Cape Town tie station and Maitland tie station.
- 3.4. The service provider is required to determine the condition and provide improvement recommendations on the OHTE, Traction Substations and Perway infrastructure conditions in the corridor.
- 3.5. The service provider is requested to formulate their recommendations in such way that:
- (a) The recommendations are clear, specific, and unambiguous as to what is expected, and who will be responsible for taking corrective action.
  - (b) The recommendations are measurable, practical, and attainable.

#### 4. SCOPE OF WORK

- 4.1. The appointed service provider will conduct an OHTE, Traction Substations and Perway infrastructure inspection in the railway corridor between Cape Town and Nolungile via Mutual Train Station.
- 4.2. The service provider will:
- a) Conduct an inspection of the 3kV DC OHTE, Traction Substations and Perway infrastructure from Cape Town to Nolungile via Mutual Train Station to assess the condition of the OHTE, Traction Substations and Perway infrastructure in the section. The service provider will also observe train traffic and the types of trains used in the corridors.
  - b) Engage in discussions with the following key PRASA personnel to understand the challenges experienced in the section and the controls implemented for safe train operations in the section:
    - Electrical Managers
    - Perway Managers
    - Train Operations Managers
    - Safety Managers
    - Any other relevant personnel that can assist with the verification inspection.

- c) Request and peruse the following OHTE, Traction Substations and Perway infrastructure documents:
- OHTE and Traction Substations infrastructure Risk Assessments
  - Traction Substation and OHTE Inspection reports
  - Traction Substation test reports and other OHTE tests in the corridor
  - Perway infrastructure risk assessments
  - Perway infrastructure inspection reports
  - Corridor Inspection reports
  - Corrective Action Implementation Plan
  - Any other relevant documents that may assist the service provider with the inspection.
- d) Conduct OHTE and Traction Substations verification tests with PRASA personnel where required. The required verification tests will be guided by the outcome of the inspections, discussions, and perusal of documents.
- e) Make recommendations to improve the OHTE, Traction Substations and Perway infrastructure conditions in the corridor.
- f) Provide a detailed inspection report covering the complete allocated scope.
- g) An estimated total of hours per expert/discipline in clause 12.1 will be allocated for this assignment. These hours include review of documents, site visits and inspections, interviews, drafting of the inspection report and any other relevant activity that will make this project a success.

## 5. PROJECT DELIVERABLES

- 5.1. After the appointment, the service provider will commence with the OHTE, Traction Substations and Perway infrastructure inspection in the corridor and drafting of the inspection report. The service provider shall submit the draft report (excluding all annexures that are supporting documents and not directly required to facilitate the understanding of the draft inspection report) to the Railway Safety Regulator (RSR) Coastal Region (Regional Technical Manager of the Railway Safety Regulator). The purpose hereof is to ensure that the service provider has met the conditions of the Terms of Reference and that the report reflects such.

- 5.2. Upon receipt of the draft inspection report, the Regional Technical Manager will require ten (10) working days to scrutinise the draft inspection report, make recommendations and provide feedback, if any, to the service provider.
- 5.3. The service provider will incorporate inputs as discussed with the Regional Technical Manager. The service provider shall submit the final OHTE, Traction Substations and Perway infrastructure inspection reports back to the RSR Regional Technical Manager within (5) working days of receiving final inputs.

## 6. QUALIFICATIONS AND EXPERIENCE

- 6.1 The service provider shall comprise a total of three (03) specialists (OHTE, Traction Substations and Perway):
- (a) Qualified and experienced expert in railway OHTE, Traction Substations and Perway infrastructure.
  - (b) The persons must have extensive experience in railway OHTE, Traction Substations and Perway as well as an excellent understanding of train operations.
  - (c) The persons must have an extensive understanding of the railway safety management system.
  - (d) The persons must have a working knowledge of the SANS 3000 series of standards and other relevant or applicable engineering and operations standards.

## 7. RESPONSIBILITY OF THE RSR

- 7.1. The RSR shall support the service provider with the following support specialist:
- a) 1 x RSR Principal Inspector. The Principal Inspector will work with the service provider and act as a Railway Operator Liaison Support.
- 7.2. The RSR, hereby agree to remunerate the service provider at the agreed hourly rates, in the execution of this Terms of Reference in line with the pricing schedule/table provided in subsection 12.1 of this document.

## 8. PROPOSAL SUBMISSION

- 8.1 The bidder must provide a detailed proposal as part of the tender, addressing and including at least the following:



- a) Proven previous experience, including testimonials from previous contracts on railway OHTE, Traction Substations and Perway infrastructure; The testimonials/reference letters should be on a client's official letterhead with valid and traceable contact details, scope of the work and standard of service. RSR may contact the references to confirm the information provided.
- b) Demonstrable capacity to deliver all the desired services that include response to the project scope and allocated resources.
- c) A detailed methodology on how the project scope will be delivered.
- d) A Project Management plan, covering project management reports.
- e) All prices should be VAT inclusive and include all travelling, and accommodation expenses as they will be arranged and paid for by Railway Safety Regulator.

## 9. COMPULSORY BRIEFING SESSION

The bidders will be required to attend a compulsory briefing session

## 10. PHASE 1: COMPLIANCE DOCUMENTS

Kindly refer to section 4 of the RFQ attached.

## 11. PHASE 2: MANDATORY REQUIREMENT

- a) Each Expert must be registered with the Engineering Council of South Africa (ECSA) in terms of the Engineering Profession Act 46 of 2000 as a Professional Engineer or Technologist. **(Submit a valid proof)**
- b) Bidders shall submit a signed declaration indicating their previous involvement in PRASA's recovery of the railway lines/infrastructure contained in this Terms of Reference.

**Failure to submit the above will result in a disqualification.**

## 12. PHASE 3: FUNCTIONALITY EVALUATION

The suitable service provider must demonstrate capacity and capability to execute this project by complying with the functionality criteria below: - **Functionality Criteria**

FUNCTIONALITY CRITERIA		100
1.	COMPANY EXPERIENCE	10 POINTS
1.1	<p>Company's proven experience in Participating in conducting railway inspections.</p> <p>Contactable Testimonials and/or references (not older than 10 years)</p> <p>3 References and above = 10 points</p> <p>2 References = 7 points</p> <p>1 Reference = 4 points</p>	10
1.2	BIDDER'S TECHNICAL TEAM QUALIFICATION & EXPERIENCE	45 POINTS
1.2.1	<p>Enclosure:</p> <p>1. The Team will comprise of 3 (three) experts</p> <p><u>The CVs and certified certificates of experts will be used for evaluation for the OHTE, Traction Substations and Perway Specialist and average their scores.</u></p> <p><b>The scoring of the key personnel will be as below:</b></p> <p><b>OHTE, Traction Substations and Perway Specialists– (Average points = 20 Max )</b></p> <p>1. Qualifications - Qualification in Electrical and Civil Engineering [or its International Qualification equivalent <b>as verified by the South African Qualification Authority (SAQA)</b>. It is the responsibility of the bidder to secure the verification]</p> <p>a) Post-graduate = 20 points</p> <p>b) Bachelor's Degree = 15 points</p> <p>c) National Diploma = 10 points</p> <p>d) No qualification = 0 points</p> <p>2. <b>Years of work experience in railway OHTE, Traction Substations and Perway inspections – Average points = 25 Points (Clarify the number of years with each employer) (e.g. 2012- 2014 conducting railway OHTE, Traction Substations and Perway inspections at company X)</b></p> <p>a) 10 years or more = 25 points</p> <p>b) 8 or more years but below 10 years = 20 points</p> <p>c) Less than 8 years = 15 points</p> <p>d) No experience = 0 points</p>	<p>20</p> <p>25</p>



<b>1.3</b>	<b>APPROACH TO WORK (Structured Approach/Methodology and Project Plan covering management of the scope)</b>	<b>45 POINTS</b>
<b>1.3.1</b>	<b>Structured Approach/Methodology</b> (Comprehensive Methodology that highlights techniques that will be employed for the project, this must include the approach and alignment to best practice) <ul style="list-style-type: none"> <li>Well defined approach methodology= 30 points</li> <li>Moderately defined approach methodology= 20 points</li> <li>Poorly defined approach methodology= 10 points</li> <li>No approach methodology= 0 points</li> </ul>	<b>30</b>
<b>1.3.2</b>	<b>Project Plan covering management of the scope</b> with milestones/phases and timelines <ul style="list-style-type: none"> <li>Well defined Project Plan= 15 points</li> <li>Moderately defined Project Plan= 10 points</li> <li>Poorly defined Plan Plan= 05 points</li> <li>No project plan= 0 points</li> </ul>	<b>15</b>
	<b>TOTAL</b>	<b>100</b>

Only bidders who scored a **minimum** of **70 points** of the total points at the functionality phase will proceed to the next evaluation.

### 13. PRICING SCHEDULE

Hours to be Spent for duration (Estimated)	Position	Rate per hour	Total (Maximum)
90 hours	Ohte Infrastructure Expert 1		
70 hours	Traction Substations Infrastructure Expert 2		
90 hours	Perway Infrastructure Expert 3		
<b>Sub Total</b>			
<b>VAT @ 15%</b>			
<b>Grand Total</b>			

**All prices should include VAT and excluding all travelling, and accommodation as they will be arranged and paid for by the Railway Safety Regulator.**