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RAILWAY SAFETY REGULATOR
RAIL SAFETY ON THE RIGHT TRACK

TERMS OF REFERENCE FOR PRASA CORRIDOR: EERSTE RIVER - STRAND AND EERSTE RIVER - MULDERSVLEI TRAIN STATION - OHTE , TRACTION SUBSTATIONS AND PERWAY CONDITION ASSESSMENT INSPECTION

Table of Contents

BACKGROUND

1.1. The Passenger Rail Agency of South Africa (PRASA) recently resumed train service on the Eerste River to Strand Station in October 2023 and the Eerste River to Muldersvlei Station in April 2024. The lines were not operational due to the theft and vandalism of the 3kV DC Overhead Traction Equipment (OHTE).

1.2. The OHTE was reinstalled on both corridors. The Passenger Rail Agency of South Africa (PRASA) is currently operating the 5M2A type trains in the corridors.

STATEMENT OF INTENT

2.1. An inspection will be conducted in accordance with Section 38 and in compliance with Section 30(b) of the Railway Safety Regulator Act, Act 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 between Eerste River to Strand Station and Eerste River to Muldersvlei Station.

2.3. The service provider should have extensive knowledge and skills in 3kV DC OHTE, Traction Substations and Perway railway infrastructure experience.

2.4. The objective of the OHTE, Traction Substations and Perway inspection between Eerste River to Strand and Eerste River to Muldersvlei 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 minimum operating standards.

c) Identify any Safety Critical operational deficiencies related to the OHTE, Traction Substations and Perway infrastructure.

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 minimum operating standards.

(c) Identify any Safety Critical operational deficiencies related to the OHTE, Traction Substations and Perway infrastructure.

3.2. There are six (6) train stations from Eerste River to Strand Train Station, namely, Eerste River, Faure, Firgrove, Somerset West, Van Der Stel and Strand; and there are seven (7) train stations from Eerste River to Muldersvlei namely; Eerste River, Lynedoch, Vlottenburg, Stellenbosch, Du Toit, Koelenhof and Muldersvlei.

3.3. There are three (3) traction substations and one (1) tie station between Eerste River to Strand station and Eerste River to Muldersvlei Station. The traction substations are Eerste River, Strand, and Muldersvlei. The tie station is Stellenbosch.

3.4. The service provider is required to 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.

SCOPE OF WORK

4.1. The appointed service provider will conduct an OHTE , Traction Substations and Perway infrastructure inspection in the railway corridor between Eerste River to Strand and Eerste River to Muldersvlei train station.

4.2. The service provider will:

a) Conduct an inspection of the 3kV DC OHTE ,Traction Substations and Perway infrastructure between Eerste River to Strand station and Eerste River to Muldersvlei 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:

- OHTE infrastructure Managers
- Permanent Way managers
- Train Operations Managers
- Safety Managers
- Any other relevant personnel that can help with the 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
- Any other documents that may help 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 what comes out from 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 an inspection report covering the complete allocated scope.

g) The service provider receives its powers to conduct this investigation from section 33 of Act 16 of 2002. The service provider has the same powers as any RSR Railway Safety Inspector.

h) An estimated total of 160 hours per expert/disciple will be allocated for this assignment. The 160 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.

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 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 five (5) working days to scrutinise the draft inspection report make recommendations and provide direction, if any, to the service provider.

5.3. The service provider will incorporate inputs and corrections 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 inputs.

QUALIFICATIONS AND EXPERIENCE

6.1 The service provider shall comprise a total of three (03) specialist (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.

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 priced schedule/table below.

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 letter 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 the service provider.

COMPULSORY BRIEFING SESSION

The bidders will be required to attend a compulsory briefing session.

Failure to attend, kindly note that your submission will not be consider.

PHASE 1: COMPLIANCE DOCUMENTS

Kindly refer to section 4 of the RFQ attached.

PHASE 2: MANDATORY REQUIREMENT

a) The persons 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.

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**
12.1.	**COMPANY EXPERIENCE**	**10 POINTS**
12.1.1	Company's proven experience in Participating in conducting railway inspections. Contactable Testimonials and/or references (not older than 10 years) 3 References and above = 10 points 2 References = 7 points 1 Reference = 4 points	**10**
12.2	**BIDDER'S TECHNICAL TEAM QUALIFICATION & EXPERIENCE**	**45 POINTS**
12.2.1	Enclosure: 1. The Team will comprise of 3 (three) experts *The CVs and certified certificates of both experts will be used for evaluation for the OHTE, Traction Substations and Perway Specialist and average their scores.* **The scoring of the key personnel will be as below:** **OHTE, Traction Substations and Perway Specialists– (Average points = 20 Max)** 1. Qualifications - Qualification in Engineering [or its International Qualification equivalent **as verified by the South African Qualification Authority (SAQA)**. It is the responsibility of the bidder to secure the verification] a) Post-graduate = 20 points b) Bachelor's Degree = 15 points c) National Diploma = 10 points d) No qualification = 0 points **2. 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)**	**20** **25**

	a) 10 years or more = 25 points b) 8 or more years but below 10 years = 20 points c) Less than 8 years = 15 points d) No experience = 0 points	
10.3	**APPROACH TO WORK**	**45 POINTS**
12.3.1	Structured Approach/Methodology and Project Plan covering management of the scope.	
12.3.1.1	**Structured Approach/Methodology (**Comprehensive Methodology that highlights techniques that will be employed for the project, this must include the approach and alignment to best practice) • Well defined approach methodology= 30 points • Moderately defined approach methodology= 20 points • Poorly defined approach methodology= 10 points • No approach methodology= 0 points	**30**
12.3.1.2	**Project Plan covering management of the** scope with milestones/phases and timelines • Well defined Project Plan= 15 points • Moderately defined Project Plan= 10 points • Poorly defined Plan Plan= 05 points • No project plan= 0 points	**15**
	TOTAL	**100**

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

12.1 PRICING SCHEDULE

To be based on 160 hours (Capped) for all three experts individually

Hours to be Spent for duration (Estimated)	**Position**	**Rate per hour**	**Total (Maximum)**
160 hours	OHTE Infrastructure Expert 1		
160 hours	Traction Substations Infrastructure Expert 2		
160 hours	Perway Infrastructure Expert 3		
Sub Total			
VAT @ 15%			
Grand Total			

All prices should include VAT. All travelling and accommodation expenses will be arranged and paid for by the RSR.

Do note that the total number of hours are <u>capped at a maximum of 160</u> hours per expert.