



**Date**  
**29 August 2008**

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## **2010 GREEN TRANSPORT PROGRAMME**

**SELECTION AND APPOINTMENT OF A CONSULTANT TO CONDUCT A  
FEASIBILITY STUDY FOR ESTABLISHING A COMPRESSED NATURAL GAS  
REFUELING DEMONSTRATION STATION**

**REQUEST FOR PROPOSAL: (RFP) SANERI-GTT01**  
**CLOSING DATE: 29 SEPTEMBER 2008 AT 12H00**

**Enquiries : Titus Mathe**  
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## **1. INTRODUCTION**

The South African National Energy Research Institute (SANERI) is hosting a Department of Science and Technology (DST) Green Transport Programme. The programme is aimed at showcasing green transport technology options during the 2010 Football World Cup (WC) and beyond.

To date five projects have been identified under the Green Transport Program, viz. (i) LPG Refueling Demonstration, (ii) Biodiesel Refueling Demonstration, (iii) Hydrogen Refueling Demonstration, (iv) Electric Vehicle Charging Demonstration, and (v) Compressed Natural Gas Refueling Demonstration. Demonstrations will take place starting in June 2009 leading up to the 2010 Soccer World Cup in June 2010. Beyond 2010, the demonstration stations and vehicles will be used as a model for national roll-out in support of the Department of Science and Technology 10 year Innovation Plan, Hydrogen Economy and Alternative Transport Technologies, DME Energy Efficiency and Biofuels Strategies. This request for proposal deals with Compressed Natural Gas (CNG) Refueling Demonstration. Various new technologies regarding CNG fuel supply, storage and delivery will be deployed and demonstrated. In the short term, sources of fuel supply could include tapping directly from existing gas networks. However, in the long-term, it is desirable to use biogas and/or hythane. The demonstration station will be designed to cater for this.

It is in this context that SANERI is interested in engaging the services of independent, multidisciplinary and reputable Consultants that have recent experience in and the capacity for carrying out feasibility studies, project development and engineering assignments associated with natural gas and/or hythane use in refueling vehicles.

Phase 1 of this project shall entail conducting a feasibility study and preparation of a business plan for the proposed vehicle refueling demonstration station. Phase 2 shall entail sourcing additional finance, procurement, construction and operating the demonstration station until March 2011. An exit strategy will be developed for taking the project beyond 2011.

The services required in this current study are for Phase 1 only, though a high level indication of how Phase 2 would best be implemented is expected.

## **2. SCOPE OF WORK**

The services required cover the full spectrum of a business case for the establishment of a demonstration refueling station and conversion of petrol/diesel engines. As a minimum, the final deliverables of Phase 1 of this study shall include:

### **2.1 Technical Report**

- Station layout, sized to refuel 100 vehicles per day
- Site selection (evaluation of three possible sites)

- Civil/Structural Systems
  - Construction Facilities & services
  - Infrastructure
  - Terrace work
  - Foundations and Substructures including geotechnical investigations
  - Buildings and Structures
  - Pipeline: pipeline culverts, supports, etc
- Gas Island Systems Specifications
  - Fuel receiving
  - Fuel Storage
  - Fuel Dispatching
  - Fire Protection System in accordance with FM Global requirements
- Electrical and Control Systems
  - Electrical System and One-Line Diagram
  - Medium Voltage AC Power Supply System
  - Low Voltage AC Power Supply System
  - Essential AC System (UPS)
  - DC Power Supply System
  - Cabling Systems
  - Raceway System
  - Grounding System
  - Cathodic Protection System
  - Metering and Relaying System
  - Distributed Control and Information System (DCIS)
  - Control and Instrumentation
- Prepare Technical & Commercial specifications for design evaluation
- Define Scope of Work for EIA/MHI studies
- List of Codes and Standards to be complied with
- Detailed Safety Requirements

## **2.2 Business Plan for the proposed vehicle refueling demonstration station**

- Capital cost
  - Storage (**supported by 3 budget quotes**)
  - Dispenser (**supported by 3 budget quotes**)
  - Auxiliaries (**supported by 3 budget quotes**)
  - Land & Buildings (estimate)
- Operating & Maintenance
  - Fuel costs (**supported by letter of supply intent**)
  - Utilities (Electricity, water, etc)
  - Labor (estimate)
  - Security (**supported by 3 budget quotes**)
  - Insurance (**supported by 3 budget quotes**)
  - Maintenance & Repair (estimate)
- Working capital

- Inventory: fuel & spare parts (estimate)
- Debtors and creditors (estimate)
- Transport (estimate)
- Implementation Schedule
- Division of responsibility matrix
- Techno-Economics model

## **5. EVALUATION CRITERIA FOR SELECTION OF THE CONSULTANT**

### **5.1 Information Required**

You are kindly requested to provide this information:

- (a) CVs and availability of key staff members, specific to the work on this project
- (b) List of similar projects undertaken
- (c) Consortium/partnership agreement, if applicable
- (d) Total price for executing this feasibility study (Phase 1)
- (e) Conceptual plan for full implementation (Phase 2) – 5 pages maximum
- (f) Company information as detailed in section 6

### **5.2 General Evaluation Criteria**

SANERI will evaluate submissions in terms of the following criteria:

- a. Technical (40% Weighting)
- b. Commercial (40% Weighting)
- c. Plan to execute Phase 2 (20% Weighting)

You are kindly requested to provide information under these three headings above (see evaluation sheet for details).

## **6. COMPANY INFORMATION REQUESTED**

Please also address the following information in your submission:

- Affiliations to OEMs
- Company profile (abbreviated to 5 pages maximum)
- Audited financial statements, total number of employees, quality systems employed, tax clearance certificate, company registration documents
- Declaration of interest (Annexure B)
- BEE Status (Annexure A)

## **7. CONDITIONS OF CONTRACT AND BUDGET**

Appropriate contract conditions will be negotiated with the successful service provider before a contract is entered into.

Estimated duration for Phase 1 is 16 weeks after contract signing. Draft interim report will be expected after 8 weeks.

A separate contract will be negotiated for Phase 2 services.

Consultants/Companies currently providing services to Green Transport Programme will not be considered.

## **8. GENERAL**

### **8.1 Queries**

All questions or queries with regard to this Request for Proposal must be communicated by fax or by e-mail to:

Titus Mathe  
Fax (+27 11) 280 0559  
Tel (+27 11) 280 0457  
e-mail: [titusm@saneri.org.za](mailto:titusm@saneri.org.za)

All questions and queries received will be answered in writing. Any question together with Saneri's answer will be sent to all recipients of this RFP, but the name of the company that asked the question will not be disclosed. Please bear this in mind when asking a question.

### **8.2 Time Lines**

It is envisaged that a contract will be finalized by mid October 2008, then work will begin in November 2008, for the period ending 31 March 2009.

### **8.3 Discussions and Negotiations**

Saneri will invite all respondents to discuss their submissions in more detail.

Saneri reserves the right to enter into negotiations with any one or more of the respondents.

The information provided to Saneri must be valid for a period of 3 months from the date of submission.

Saneri undertakes to apply the required confidentiality to all information submitted. The documents submitted shall not be returned.

Saneri will not necessarily accept any proposal.