

**PART A****REQUEST FOR INFORMATION (RFI)**

**REQUEST FOR INFORMATION (RFI) FOR RENEWABLE ENERGY PLANT  
DEVELOPMENT AT GEROTEK TEST FACILITIES IN ELANDSFONTEIN, PRETORIA  
WEST.**

DETAILS OF THE BIDDER	
Name of the Bidder	
Company Registration Number	
Telephone Number	
Mobile Number	
Email Address	
Physical Business Address	
Years of Experience in the development of renewable energy plants.	
Contact Person	
Signature	

**Both part A and B, together with the returnables requested must be  
submitted electronically on or before the closing date of  
Monday, 07 November 2022.**

**Responses must only be submitted electronically to  
[mapulem@armscor.co.za](mailto:mapulem@armscor.co.za)**

**REQUEST FOR INFORMATION – DEVELOPMENT OF A RENEWABLE ENERGY PLANT****1. INTRODUCTION**

Gerotek Test Facilities, a Division of Armscor SOC Ltd (Gerotek), is a multi-disciplinary organisation, providing accredited, independent vehicle and component testing and evaluation services, product promotions, corporate events and advanced driver training and development programmes to the defence and security forces, automotive, electronics and other industries, both locally and internationally. Gerotek offers a one-stop service by supporting the full product life cycle from development testing, production testing, to product launch and promotion.

Gerotek intends to develop a renewable energy plant to respond to the energy challenges at the Gerotek facility in Pretoria West, as well as to sweat the available land parcel to generate revenue for the organisation. Various business models and funding models of the renewable energy plant must be investigated and evaluated in order to develop an optimised technical and business case. Gerotek will work with key economic partners in the City of Tshwane in the development and evaluation of the feasibility of this renewable energy project.

**2. BACKGROUND**

The development of the renewable energy plant will be in view of the agreements that will need to be entered into with Gerotek. It is anticipated that the power will be produced on site and fed to a substation which will also be built for reticulation of power to the entire development site at Gerotek.

The generated energy will supply the identified business opportunities that will put in facilities in the Gerotek test facility. However, should there be a demand from industries and business outside the Gerotek test facility, the energy generated is to be wheeled through the city of Tshwane's electrical grid to those industrialists and possibly business at a favourable wheeling tariff to be determined by and as Gazetted by the City.

### 3. CRITICAL CONSIDERATIONS

The development of the renewable energy plant will entail an investigation of market demand, technical assessment, delivery business model and financial model, with the aim of attaining economic viability. The renewable energy plant options to be considered include:

- Solar Photovoltaic (PV) Renewable Energy Plant and Energy Storage;
- Biogas Renewable Energy Plant;
- Gas Renewable Energy Plant; and
- Wind Power Renewable Energy Plant.

Key Stakeholder considerations in the development of the above renewable energy plant options include, but not limited to the requirements by the following institutions.

Stakeholder	Institutions	Role
National government	<ul style="list-style-type: none"> <li>• Department of Science and Technology (DST)</li> <li>• Department of Energy (DoE)</li> <li>• Department of Environmental Affairs (DEA)</li> <li>• Department of Trade and Industry (the DTI)</li> </ul>	<ul style="list-style-type: none"> <li>• Custodians of technology research and development</li> <li>• Management of energy resources and allocation</li> <li>• Promotes sustainable use of natural resources and responsible for environmental authorisations</li> <li>• Develops, implements and monitors economic policy and programmes to increase economic growth</li> </ul>
Parastatals	<ul style="list-style-type: none"> <li>• National Energy Regulator SA (NERSA)</li> <li>• SA National Energy Development Institute<sup>4</sup></li> <li>• ESKOM</li> </ul>	<ul style="list-style-type: none"> <li>• Regulation of energy industries (pricing and tariffs)</li> <li>• Tackles development of human capital in the energy research sector</li> <li>• State utility provider responsible for the generation, transmission and distribution of electricity in SA</li> </ul>
Local government	Metropolitan municipalities	Distribution of electricity to households
Sector Associations	<ul style="list-style-type: none"> <li>• South African National Energy Agency (SANEA)</li> <li>• Southern African Biogas Industry Association (SABIA)</li> <li>• Sustainable Energy Society of South Africa (SESSA)</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of sustainable supply and use of energy</li> <li>• Promotion of biogas as a renewable energy source</li> <li>• Creation and growth of authoritative renewable energy forum</li> </ul>

## **4. KEY TECHNICAL AND FINANCIAL ASSUMPTIONS**

### **Gerotek's Power Capacity and Demand**

- The extent of the site is approximately 513ha. There is 210ha available to accommodate the proposed renewable energy plant.
- Gerotek's installed power capacity is at 5MVA maximum nominal demand (NMD) supplied by the City of Tshwane (COT) municipality. This is equivalent to 4MW of real power.
- It is assumed that the facility uses less than 50% of installed power for all electricity requirements. Therefore, estimated power utilisation and demand is 2MW (2000 kW).

### **Gerotek's Power Consumption and Cost**

- Gerotek has eleven (11) electricity accounts with the COT municipality, catering for the multiple metering installations covering huge geography of the facility. The total electricity consumption is approximately 45000 kWh per month.
- At a minimum the investment into a renewable energy plant should achieve a cost saving on Gerotek's power consumption costs.

### **Power Requirements for Electrical Vehicle Charging Stations**

- Electrical fuelled vehicles will be tested at Gerotek in the near future, and clients have indicated their need for at least a fast-charging system capable of charging at high voltage (800V).
- The total power requirement for EV charging facilities will be 360 kW in the medium-term.

## **5. SCOPE OF WORK**

The prospective service provider is to submit a proposal and information to Armscor for the development of any of the above renewable energy plant options at Gerotek, together with a budget cost estimate. The proposal should address the following requirements, but not limited to:

- 5.1 Selection of a renewable energy solution in the service provider's area of expertise. The selection of the solution must be informed by considerations of: the maturity and stability of the technology, environment, geography, location, and other technical inputs to make the renewable energy solution viable.
- 5.2 Gathering of technical data at Gerotek in terms of the estimated Power demand requirement to determine capacity of the renewable energy plant, and Bulk infrastructure required to support the development of the plant.
- 5.3 The technical specification of the proposed development, construction or installation of the selected renewable energy plant.
- 5.4 The total project cost estimate for capital expenditure on the delivery of the project and estimated operational expenditure on annual basis.

- 5.5 Required permissions from authorities in terms of developing and operating the plant as governed by relevant legislations.
- 5.6 The proposed type of contractual agreement between the Investor/ Plant Developer and Armscor in terms of building, owning, operating, and maintaining the plant; together with a proposed funding structure between the Investor and Armscor.

The responses can include relevant literature to assist Armscor in making an informed optimal energy mix decision.

## 6. RETURNABLES - INFORMATION REQUESTED

Suppliers are requested to provide information as indicated below:

1.	<b>B-BBEE Status</b> Kindly indicate your entity's % Black Equity Ownership (BEO) and submit a valid proof of BBBEE status			<b>% BEO</b>																									
2.	<b>CSD Registration</b> Is your entity registered on CSD? Kindly submit your entity's proof CSD registration			YES	NO																								
3.	<b>Original Equipment Manufacturer Status</b> Is your entity an Original Equipment Manufacturer of the proposed system?			YES	NO																								
4.	If not an OEM, is your entity an Accredited Agent of the system you are proposing to Armscor?			YES	NO																								
5.	<b>Country of Origin</b> Indicate the country where the manufacturing of the system will take place.																												
6.	<b>SUBCONTRACTING</b> <ul style="list-style-type: none"> <li>Will your entity consider subcontracting any of the work included in this project scope?</li> <li>If so, indicate which part of the scope will be sub-contracted.</li> </ul> <table border="1" data-bbox="220 1615 1157 1921"> <thead> <tr> <th>Description</th> <th>Yes</th> <th>No</th> <th>% Subcontracting</th> </tr> </thead> <tbody> <tr> <td>Design</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Development/ Manufacturing</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Installation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Professional Services</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Description	Yes	No	% Subcontracting	Design				Development/ Manufacturing				Installation				Professional Services				Other			
Description	Yes	No	% Subcontracting																										
Design																													
Development/ Manufacturing																													
Installation																													
Professional Services																													
Other																													
7.	<b>Reference Letters from Clients</b> Kindly submit 3 reference letters from the entity's clients where the proposed <b>Renewable Energy Plant</b> system was successfully installed.																												

## **7. RFI CONDITIONS**

- 7.1. This RFI is only for information purpose and therefore shall not be awarded.
- 7.2. The costs of preparing the submission shall not be reimbursed.
- 7.3. Only bidders who participated in the RFI will be allowed to participate in the future Request for Bid (RFB) process.

--- ends ---