Call for Interest: Hydrogen Fuel Cell Public Awareness

INTRODUCTION

The South African Agency for Science and Technology Advancement (SAASTA) is a business unit of the National Research Foundation. SAASTA's mission is to promote broad public awareness, appreciation and understanding of science, engineering and technology in South Africa.

The Hydrogen and Fuel Cell Technologies (HFCT) Research, Development, and Innovation (RDI) strategy, named Hydrogen South Africa (HySA), was officially launched in September 2008. The vision of the strategy is to use local resources and existing knowledge to create knowledge and resource capacity, enabling the development of high-value commercial activities in HFCT. In order for any new technology to succeed, there has to be a complete buy in from all stakeholders. It is for this reason that the HySA Public Awareness Platform was developed with the aim of creating awareness, visibility and acceptance amongst the public, entrepreneurs and key decision makers in South Africa (SA) about the benefits and safety of using HFCT in the alternate energy industry. HySA Public Awareness platform, an initiative of the Department of Science and Technology (DST) is hosted by SAASTA's Science Communication Unit.

Hydrogen and fuel cells technology (HFCT) is a technology which uses both hydrogen and fuel cells to generate electricity. Hydrogen is an energy carrier which stores and delivers energy in a usable form. Using hydrogen as an energy carrier will reduce the country's dependence on importation of oil and also reduce greenhouse gas emissions that cause global warming. Fuel cells directly convert the chemical energy in hydrogen to electricity with water and heat being the by-products. Fuel cells are currently applied in SA in a combined heat and power station for back up power, in portable power and in vehicles.

South Africa (SA) is the richest country in platinum with at least 75% of platinum group metals (PGMs) reserves. PGMs are used as key catalysts in most fuel cell technologies; hence SA is considering the use of HFCT to generate electricity in safer, reliable and cleaner methods. The use of PGMs will benefit both local and international markets; the local benefits include the economic benefit through job and wealth creation and an improved quality of life for all South Africans. And internationally, HySA's goal is to supply 25% of the future global fuel cell market with novel, locally developed and fabricated PGM catalysts by 2020.

HFCT, like other energy technologies has its disadvantages. The main disadvantage of this technology is that fuel cells are currently expensive to produce. The other disadvantage is that hydrogen can not be found freely on earth (i.e. it needs to be separated from other compounds such as hydrocarbons, natural gas or water) and all these technologies for hydrogen separation requires energy. Therefore HySA public

awareness needs to inform the public, entrepreneurs and key decision makers about the benefits and challenges of using HFCT in SA.

CALL FOR INTEREST

The SAASTA/HySA public awareness platform wishes to invite institutions engaging in science outreach and awareness to participate in advancing public engagement around this emerging technology. In response to this "Call for Interest" interested parties are requested to complete the attached form. All successful candidates will be invited to participate in a symposium where information will be shared on cutting edge research and developments in the alternative energy sector. Following this information session, shortlisted candidates will be required to submit detailed implementation proposals for funding consideration.

The deadline to respond to this "Call for Interest" is **17th September 2010.** Completed forms need to reach our offices by 12h00 on the 17th of September 2010.

SYMPOSIUM / INFORMATION SESSION

The symposium where information will be shared on cutting edge research will be held in Gauteng on the 10th of October 2010. Details will be communicated after the closing date of the "Call for Interest" on the 17th of September 2010.

REQUIREMENTS

In order to identify and shortlist interested candidates, the following information is required from the interested parties (see the attached form):

1. Name of organisation
2. Information on the organisational structure
3. Audited financial statements for the organisation, dating back two (2) years
4. An indication of any prior engagements with SAASTA funded projects/ programmes
5. Information relating to grants awarded to the organisation by SAASTA in the past, where / if applicable. If the organisation has been a SAASTA grant holder in the past, a detailed discussion of the grant(s), the amount(s) awarded, the amount(s) returned to SAASTA, the levels of success in reaching the objectives of project(s) previously undertaken.
6. Organisation's target audience(s)
7. The name of the person(s) who will be responsible for implementing the project. List the individual(s) who will represent the organisation at the symposium.

CLOSING DATE

All responses to this "Call for Interest" from parties wishing to be considered should reach SAASTA no later than 12h00 on the **17th of September 2010**. Applications should be delivered electronically via email or fax, or delivered by hand to the SAASTA offices in Pretoria. No late applications will be considered. Incomplete applications which fail to provide adequate information on all the requirements stated in the previous section shall not be considered.

ENQUIRIES

Enquiries should be directed to

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