



## **2021 HERITAGE BASED CALL FOR RESEARCH PROPOSALS IN ENERGY PRODUCTION AND DELIVERY; AND ENERGY STORAGE**

### **I. Background**

The Research Council of Zimbabwe (RCZ) in collaboration with Zimbabwe Energy Regulatory Authority (ZERA) invites research proposals aimed at addressing issues in electrical power generation, transmission, distribution and battery manufacture. The proposals should seek innovative solutions to identified operational and developmental issues and thus improve reliability in the generation, transmission, distribution and supply of modern energy and develop heritage based knowledge in the research area.

### **II. Objectives of the Call**

This Call is aimed at supporting research that contributes to:

- i. Producing knowledge on practical and realistic solutions or technologies that are domestically and industrially implementable;
- ii. Improving Reliability in the production and delivery of electrical energy;
- iii. Providing technologies to improve, measure and verify Energy storage; and
- iv. Supporting human resources development in research in the identified and complimentary areas.

### **III. Research Areas**

Proposals should address issues in energy as espoused in key thematic areas of the National Development Strategy 1 (NDS1), National Energy Policy, Vision 2030 and the National Research Priorities. Proposals should cover the following under-listed areas:

#### **3.1 Power Generation**

- i. Boiler Tube failures and water chemistry;
- ii. Mobile coal handling plant utilization and optimization;
- iii. Root cause analysis on generator winding overheating; and
- iv. The economics of coal washing.

#### **3.2 Power Delivery**

- i. Distribution infrastructure security;
- ii. Analysis of and development of solutions for technical faults; and
- iii. Evaluation of voltage and technical loss performance.

#### **3.3 Energy Storage**

- i. Power density and durability assessment of locally manufactured batteries; and
- ii. Development of local capacity in Lithium-ion battery manufacture

#### **3.4 Other Energy Areas**

- i. Energy efficiency, renewable energy and economics of energy supply



#### 4 Eligibility

- i. Funding is open, on a competitive basis, to Zimbabwean researchers in Engineering, Physical and Social Sciences and any other academic disciplines, at local Academic Institutions, Research Institutions or Government Research Departments.
- ii. Researchers from the Private Sector and Non-profit organizations affiliated to a Zimbabwean approved public institute are also encouraged to apply.
- iii. Consortia of the above, with one institution as lead applicant assuming responsibility and accountability can also apply and may have a competitive advantage.

***NB: Female researchers are encouraged to apply.***

#### 5 Budget Limitation

Funding is provided to the level indicated in the proposal budget, subject to clear and justified value for funds in research formulation, project execution and research outputs.

#### 6 Processing of Proposals

- i. The evaluation and selection of proposals will comprise verification of the proposal eligibility.
- ii. Confidential peer review of the proposals by experts.
- iii. Short listing of reviewed research proposals.
- iv. Communicating results and funding decisions to applicants by 3<sup>rd</sup> quarter 2021 (**projects should commence by 20<sup>th</sup> of September 2021**).
- v. RCZ and ZERA decision will be final.

#### 7 Submission

- i. All documents (application form, full research proposal, annexes, etc.) have to be submitted as PDF and MS Word files to [rczc@rcz.ac.zw](mailto:rczc@rcz.ac.zw) and copied to [research@zera.co.zw](mailto:research@zera.co.zw) with subject “Renewable Energy Systems Integration, Reliability in Energy Production/Delivery and Energy Efficiency”.
- ii. Approval from the host institution of affiliation is a prerequisite. Proposals without institutional approval will not be considered.

#### 8 Submission Deadline

The deadline for submission of applications is 23 July 2021 by 1700hrs.

#### 9 Contact Information

- For additional information on the call visit [www.rcz.ac.zw](http://www.rcz.ac.zw)
- For any queries or additional information, contact RCZ: Tel. 263-24-2304733, 2304787 cell 0712 954 330/2

##### Contact Person

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