

# **CONCEPT NOTE: SENIOR HIGH SCHOOLS' RENEWABLE ENERGY CHALLENGE**

## **Introduction**

The Energy Commission (EC) as part of its mandate under the Renewable Energy Act, 2011 (Act 832), is responsible for promoting the development and utilization of renewable energy resources and technologies in Ghana. In line with this, the Commission initiated the Senior High School (SHS) Renewable Energy Challenge, with the aim of fostering an interest in renewable energy, in students of second cycle institutions. The challenge will be organised as part of the major highlights for the Annual Ghana Renewable Energy Fair and National Energy Symposium to promote research and innovation in renewable energy and energy efficiency (RE&EE) and to address developmental challenges at both the local and national level.

The Energy Commission in collaboration with the Ghana Education Service seeks to provide education and awareness on renewable energy and energy efficiency among the various senior high schools and technical institutions in the country. The challenge will highlight various competitions by SHS students and provide a platform for the exhibition of their innovative projects. The aim is to promote creative thinking and to provide mentorship to the young students. Schools that have their projects selected will be offered a platform to showcase their projects at the Annual Ghana Renewable Energy Fair and National Energy Symposium where the most outstanding projects will be awarded prizes.

The maiden edition of the High School Renewable Energy Challenge was held as part of the 5<sup>th</sup> Ghana Renewable Energy Fair on 8<sup>th</sup> October, 2019 at the Accra International Conference Centre. It was opened to only schools in the Greater Accra Region. Six (6) schools competed in the finals. At the end of the competition, Ebenezer Senior High School emerged as the winners with Forces Senior High Technical School and Manhean Senior High Technical School emerging as 2<sup>nd</sup> and 3<sup>rd</sup> respectively.

## **Objectives**

The objectives of the Challenge are to:

1. develop the research skills of Senior High School students and promote technological innovation in renewable energy and energy efficiency;
2. instill in students a passion for solving renewable energy, energy efficiency and climate change challenges through innovative research;
3. develop presentation skills of Senior High School students; and
4. promote self-confidence and encourage hard work through public recognition and rewards.

## **2<sup>ND</sup> SENIOR HIGH SCHOOLS' RENEWABLE ENERGY CHALLENGE**

The 2<sup>nd</sup> edition of the Senior High Schools' Renewable Energy Challenge would be opened to all schools nationwide.

Sixteen (16) regional competitions would be organised in all the regional capitals to select the best project for each region. A total of sixteen (16) schools would proceed to the next stage of the competition.

Following this, two Zonal competitions would then be held for the southern and northern zones with each zone comprising 8 schools. The best 6 projects would be selected for the respective schools to exhibit and present them at the finals of the competition to be held at the Accra International Conference Centre during the 7<sup>th</sup> Ghana Renewable Energy Fair on 14<sup>th</sup> October, 2021.

Prior to the finals, the 8 finalists would be linked to relevant research and academic institutions to support them to improve upon the project designs.

Opportunity would be given to a limited number of schools outside the selected finalists to exhibit the project as part of the Annual Ghana Renewable Energy Fair.

### ***Entry Requirements***

1. Participation is open to all Senior High and Technical schools.
2. A participating school may have a team consisting of 2 students with the support of 1 teacher.
3. The school must submit details of its proposed project proposal to the Regional

Coordinator of Science, Technology, Mathematics and Innovation Education (STMIE).

4. The submission may include the following:
  - i) Completed Registration Form by the SHS
  - ii) A PowerPoint Presentation or project proposal of an innovative/original solution to a problem using RE/EE technologies.
  - iii) A 10-minute (maximum) video of the RE/EE Project if available.
5. Each SHS would be permitted to submit only one entry

### **Selection Process**

An evaluation committee made up of representatives from Energy Commission and Ghana Education Service would be set up to evaluate all the project entries for selection to the Regional, Zonal and the Grand Finale stage.

### **Venue for Competition**

The finals of the Senior High Schools' Renewable Energy Challenge will be held at the Accra International Conference Centre during the 7<sup>th</sup> Ghana Renewable Energy Fair which will be held from the 12<sup>th</sup> – 14<sup>th</sup> of October, 2021.