



MINISTRY OF
NEW AND
RENEWABLE ENERGY



Bharat
RE
Summit & Expo 2026
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YOUNG ENERGY INNOVATORS CHALLENGE 2026

School 3D Model Challenge on Renewable Energy | Guidelines for Participating Schools

About BRE Summit: The Bharat Renewable Energy Summit & Expo (BRE Summit 2026) brings together government, industry, academia, researchers, innovators and other stakeholders to advance India’s renewable energy transition. Through the REGen (Renewable Energy Generation & Innovation) Pavilion, BRESE provides a platform for students and young innovators to present ideas, prototypes and emerging solutions, connect with the wider energy ecosystem, and understand how innovative concepts can move towards practical application.

Why should schools participate?

India’s renewable energy transition needs young people who can understand real-world energy challenges and apply scientific knowledge to develop practical solutions. The Challenge gives school students an opportunity to move beyond textbook learning, work on a renewable-energy problem, build a 3D/working model and receive national exposure. It also encourages curiosity, experimentation, scientific thinking and early engagement with India’s clean-energy future.

The Challenge at a Glance

Particular	Details
Eligibility	Students of Classes 9 -12
Team	Up to 2 students + 1 teacher mentor.
Entry	One entry per school
Model	3D or working model addressing one listed problem statement
Finalists	Top 15 schools/teams will be invited to showcase at BRE Summit 2026
Recognition	Cash awards and recognition; further details as communicated by organisers

Problem Statements

1. **Solar-Powered Buildings:** How can we design a home, school or public building that meets most of its energy needs using solar energy?

2. **24×7 Renewable Power:** How can renewable energy be made available when the sun is not shining or the wind is not blowing?

3. **Renewable Energy Village:** How can a village meet its electricity and productive energy needs using locally available renewable resources?

4. **Clean Energy for Agriculture:** How can renewable energy make farming more productive, affordable and sustainable?

5. Future Clean Mobility: How can India's future transport systems be powered using clean and renewable energy?

6. Green Hydrogen of the Future: How can renewable electricity be used to produce, store and use green hydrogen safely and effectively?

7. Waste to Clean Energy: How can locally generated waste be converted into useful clean energy?

8. Circular Renewable Energy: What can we do with solar panels, batteries and wind-energy components when they reach the end of their useful life?

9. Smart Grid for High Renewable Energy: How can a smart electricity network manage large amounts of solar and wind while maintaining reliable electricity supply?

10. Clean Energy India @2047: Design a 3D model of a clean-energy community of 2047 that integrates multiple renewable energy technologies to meet its energy needs sustainably.

Model requirement: Models should demonstrate innovation, scientific understanding and practical application, rather than replicate standard textbook models.

Participating schools shall prepare an original 3D or working model addressing one of the prescribed renewable-energy problem statements. The model should demonstrate scientific understanding, innovation and practical application.

MODEL SPECIFICATIONS

- **Recommended maximum footprint:** 4 ft × 4 ft (122 cm × 122 cm), including the base. Keep the model compact and suitable for safe transport and exhibition.
- **Recommended height:** Up to 3 ft (92 cm).
- **Model format:** 3D static or working model; it must clearly explain the selected problem statement and proposed solution.
- **Identification:** Display the school name, model title, selected problem statement, students' names and teacher mentor on a clearly visible label.
- **Explanation:** Keep a brief display note describing the problem, concept, working principle, key features and practical application.



PARTICIPATION INSTRUCTIONS

Young Energy Innovators Challenge 2026

- 1. Single School. Single Entry.** Each school may submit only one entry. The entry shall comprise up to two students from Classes 9–12 and one teacher mentor.
- 2. Select One Problem Statement.** The team shall select one problem statement from the ten listed in this document and develop a 3D or working model addressing that specific challenge.
- 3. Proposal & Video Pitch.** The school/team shall submit a brief proposal describing the problem, proposed solution, working principle and model design, along with a 2-minute video pitch, in the prescribed format and within the announced timeline.
- 4. Originality & Innovation.** The model should reflect the students' own understanding, creativity and application of science. Standard textbook models or direct replication of existing models should be avoided.
- 5. School Responsibility.** The school shall be responsible for mentoring the students and arranging all materials, equipment and other requirements for development, transportation, installation and demonstration of the model.
- 6. Travel & Stay.** For the Top 15 selected schools/teams, travel from the school's/base location to the BRE Summit venue and return, local transportation, boarding/lodging and other incidental arrangements shall be managed by the participating school.
- 7. Exhibition at BRE Summit.** Selected Top 15 schools/teams shall showcase their models at BRE Summit 2026 and participate in jury interactions and the programme schedule communicated by the organisers.
- 8. Electrical Power for Working Models.** For the working-model display at the BRE Summit, the organisers will provide only one 5A electrical socket per participating model/display space. Schools must bring all other required electrical accessories, adaptors, extensions, converters, power supplies and equipment.
- 9. Safety & Supervision.** The school shall ensure safe handling, transportation, installation and demonstration of the model and appropriate supervision of students. Potentially hazardous components must be used responsibly and under suitable adult supervision.
- 10. Evaluation & Recognition.** The Top 15 schools/teams will be selected through evaluation of innovation, scientific merit, relevance, applicability and feasibility. An expert jury will evaluate the exhibited models at BRESE. Awards and recognition will be as per the final scheme communicated by the organisers.

Important Note for Schools

Schools should plan the model keeping exhibition, transportation and on-site demonstration requirements in mind. Only a 5A socket will be made available by the organisers for the working-model display at the BRE Summit; no other electrical infrastructure or equipment should be assumed to be provided.

