

Progress Report on SDG 7

Affordable and Clean Energy at Rajshahi University of Engineering & Technology (RUET)

Rajshahi University of Engineering & Technology (RUET) is committed to advancing **access to affordable, reliable, sustainable, and modern energy**, in alignment with **Sustainable Development Goal 7**. Through research, education, and campus initiatives, RUET is fostering knowledge and solutions for renewable energy, energy efficiency, and smart energy systems.

Key Highlights

- The Institute of Energy & Environmental Studies (IEES), established in 2016, leads postgraduate programmes (MSc, MPhil, PhD) and research in renewable energy, energy efficiency, energy auditing, and sustainability. (iees.ruet.ac.bd)
- IEES organised a three-day short course on "Harnessing the Wind: Analytical, Numerical and Experimental Approaches to Wind Energy" (24–26 July 2025) with 108 participants including faculty, students, and industry professionals. (ruet.ac.bd)
- A short course on "Solar Energy: Basics and Applications" (7–9 March 2024) introduced participants to photovoltaic systems, solar thermal technology, and practical applications. (ruet.ac.bd)
- Campus-based assessments indicate that RUET's 153-acre campus receives an average solar radiation of 4–6.5 kWh/m² per day, highlighting significant potential for solar energy adoption on rooftops and open spaces. (<u>research.library.mun.ca</u>)
- The Department of Electrical & Electronic Engineering (EEE) conducts research on photovoltaic systems, solar system simulators, renewable energy systems, and smart grid power control. (ipe.ruet.ac.bd)
- RUET faculty research extends to hydrogen energy, battery systems, fuel cells, hybrid energy system optimization, and waste-to-energy conversion, demonstrating a broad commitment to clean and innovative energy solutions. (<u>mte.ruet.ac.bd</u>)
- The university actively engages students in **hands-on renewable energy projects**, workshops, and seminars, building practical skills alongside theoretical knowledge.

Impact and Next Steps

Through its teaching, research, and capacity-building initiatives, RUET is preparing a generation of engineers and researchers capable of **designing and implementing sustainable energy solutions** in Bangladesh and globally.

Future plans include:

- Installing and reporting **on-campus renewable energy systems**, such as rooftop solar PV, and publishing annual data on energy generation and renewable share.
- Expanding **student-led projects** in solar, wind, hybrid systems, smart grids, and energy efficiency audits of campus buildings.
- Strengthening **industry collaboration** to implement energy-efficient retrofits and technology transfer initiatives.
- Extending **community outreach programmes** to promote awareness and adoption of affordable clean energy solutions in the Rajshahi region.