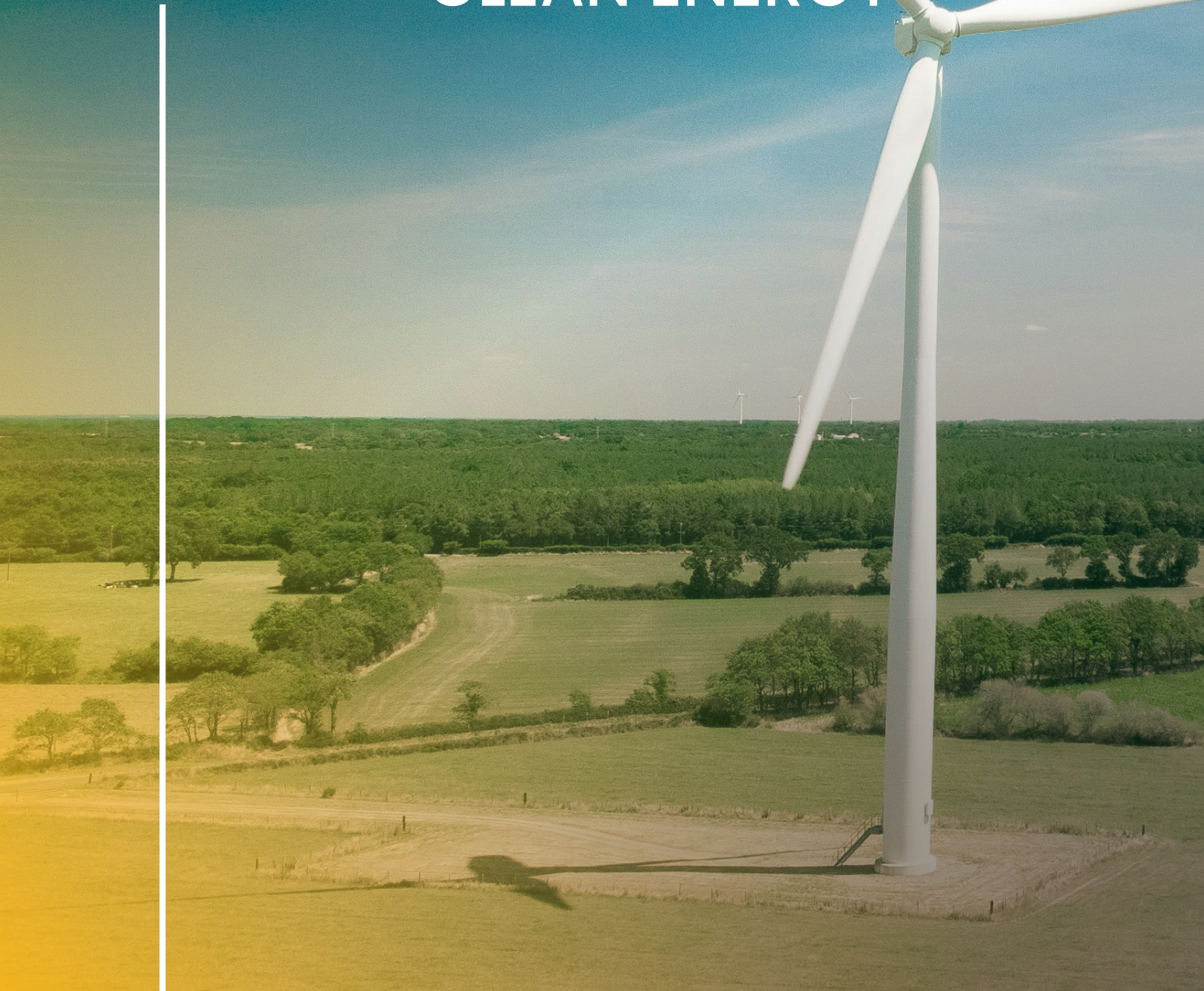


7 AFFORDABLE AND
CLEAN ENERGY



SDG 7

AFFORDABLE AND CLEAN ENERGY





Universitas Padjadjaran implements SDG 7 through various initiatives that support the use of efficient, sustainable, and environmentally friendly energy.

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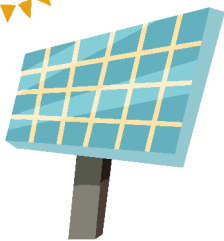
1.15

CITATION
IMPACT



1,153

CITATION
COUNT



200 SOLAR PANELS INSTALLED IN NEW SOLAR POWER GENERATION SYSTEM IN THE CAMPUS AREA OF UNIVERSITAS PADJADJARAN

Universitas Padjadjaran implements various strategies and practices to reduce negative impacts on the environment, promote sustainability, and create a healthy environment for students, lecturers, and staff. One of the campus' focuses is the efficient use of resources. By adopting environmentally friendly energy such as solar panels, Universitas Padjadjaran can reduce carbon emissions that contribute to climate change.

In 2023, Universitas Padjadjaran started an initiative to install solar panels as part of the campus' sustainability efforts and carbon footprint reduction. The goal of this initiative is to support global efforts in mitigating climate change by reducing carbon emissions generated from the use of conventional energy. In addition, the purpose of installing solar panels is to increase awareness of renewable energy among students and staff and provide educational and research facilities related to renewable energy.

The capacity of the solar panels produces a total electricity production of 350 kWh/day or equivalent to a savings of Rp323,750/day from the monthly bill of the State Electricity Company (PLN). Unpad is committed to always contributing to realising a Go Green campus. By utilising renewable energy from campus solar panels, Unpad has contributed to reducing carbon emissions equivalent to 335 Kg CO₂/day or equivalent to planting 18 trees/day.



127,750kWh
Saving / year with
solar panel

500
Electric bikes



500 ELECTRIC BIKES IN UNIVERSITAS PADJADJARAN

Universitas Padjadjaran initiated the use of Beam electric vehicles as part of an effort to create a more environmentally friendly and sustainable campus. Beam Mobility itself is the largest micro-mobility company in the Asia Pacific. Officially, it launched an electric bicycle ride-sharing service on the Jatinangor campus, Sumedang, West Java. This initiative is a concrete step by Unpad in reducing carbon emissions and encouraging the use of green transportation technology among students, lecturers, and staff.

Universitas Padjadjaran operates 500 electric bikes on the Jatinangor campus equipped with Internet of Things technology features to monitor vehicle conditions directly. The procurement of electric bikes is an effort to facilitate the mobilisation of Unpad academics through transportation without emissions or vehicle exhaust fumes on campus. The system used is claimed to be able to automatically detect problems, such as when the user needs to replace the battery. Each fleet is also equipped with a backup battery.

The system used is claimed to be able to automatically detect problems, such as when the user needs to replace the battery. According to him, each fleet is also equipped with a backup battery. The electric bike sharing transportation service was signed on November 14, 2023. The electric bikes will be spread across 10 parking spots around the campus. Each unit is equipped with instructions for use and safety while driving.



COMMUNITY OUTREACH: TURN WASTE INTO BIOGAS

Livestock waste in Indonesia is still a problem because many people are reluctant to process it, causing environmental pollution. However, research related to the use of livestock waste as a renewable energy source is growing. Professor of the Faculty of Animal Husbandry, Universitas Padjadjaran, Prof. Dr Ir. Ellin Herlia, M.S., stated that biogas could be produced from a combination of livestock faeces and lignite (young coal). Lignite, although rarely used because it has low heat, can be used together with livestock faeces to produce methane gas, which has the potential to be a renewable energy source.

In the process, buffalo faeces and lignite coal are put into a 35 litre biogas digester. Then, it is dried to form a bioblock as a portable biogas substrate. Portable biogas can be used as an energy source for daily needs, especially for remote areas. One of the uses of biogas for the community is for cooking. Currently, this research continues to be developed, especially in terms of packaging and distribution.



PNRE UNIVERSITY OUTREACH & ENGAGEMENT

Energizing Future Talent



ENERGY AWARENESS WITH PERTAMINA NEW & RENEWABLE ENERGY

Renewable energy socialization is an important effort to increase public understanding, participation, and acceptance of the use of clean and sustainable energy. Therefore, Universitas Padjadjaran, in collaboration with Pertamina New & Renewable Energy (PNRE), held an activity themed "PNRE University Outreach & Engagement: Energizing Future Talent", which was held at Bale Sawala, Universitas Padjadjaran Rectorate Building, Jatinangor, on Thursday, March 16, 2023

Director of HR and Corporate Services PT. Pertamina Power Indonesia Said Reza Pahlevy said that the remaining amount of fuel oil reserves in Indonesia will only last for the next 7 years. Therefore, new and renewable energy is needed as an energy source in the future. Rahmat explained that the greatest potential for renewable energy in Indonesia is Geothermal. Unlike oil which will run out if it is used continuously, the amount of Geothermal will continue to increase when it is managed.

The PNRE University Outreach & Engagement event was also filled with the delivery of internship information for students and employee recruitment for Unpad graduates. Previously, a number of Unpad leaders held an audience with PNRE to explore various other potential collaboration possibilities.