



SDG 07

Affordable and Clean Energy

7 AFFORDABLE AND CLEAN ENERGY



Research by Number (2020-2024)



Publication

171



Citation Impact

1.42



Citation Count

1,642



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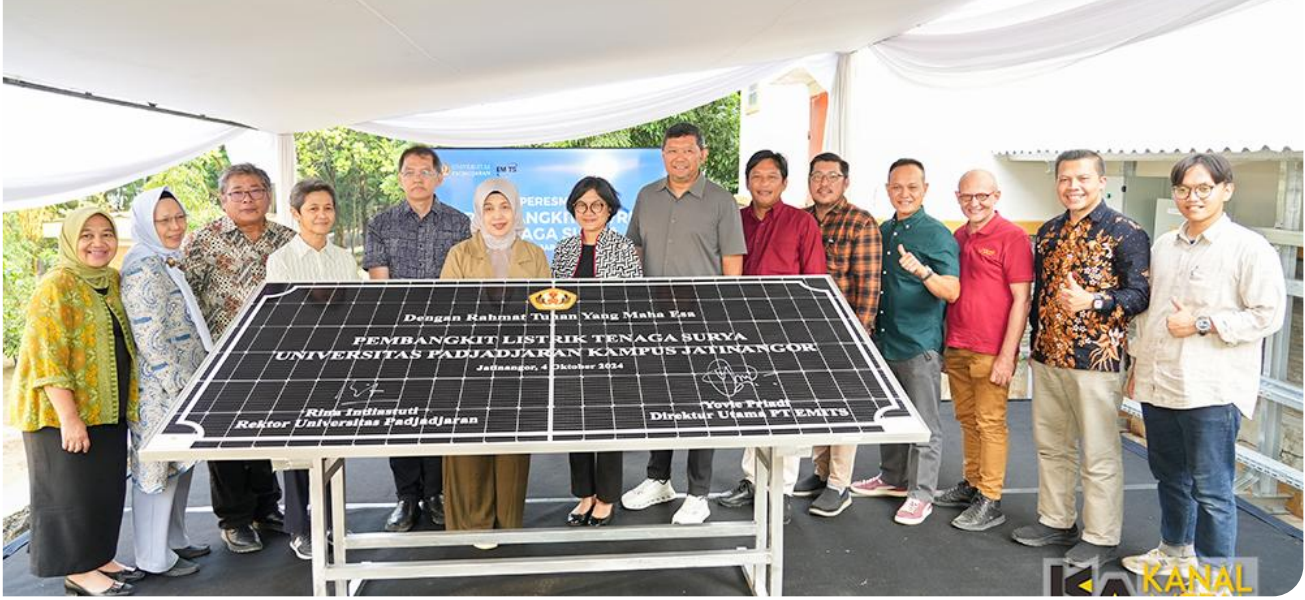


Fikom Unpad dan Pertamina NRE Bersinergi Wujudkan Edukasi Transisi Energi Bersih Menuju Net Zero Emission 2060

Universitas Padjadjaran, through the Faculty of Communication Sciences (Fikom), plays an active role in supporting the transition toward clean and renewable energy in Indonesia. On April 22, 2024, Fikom Unpad organized a public lecture titled *“Communication Strategies in the Development of New and Renewable Energy,”* in collaboration with PT Pertamina New and Renewable Energy (Pertamina NRE). The lecture discussed the role of communication in promoting and adopting renewable energy, as well as being part of efforts to raise awareness of the energy transition among the academic community. During the event, a Cooperation Agreement was also signed between the Dean of Fikom Unpad, Dr. Dadang Rahmat Hidayat, M.Si., and the Corporate Secretary of Pertamina NRE, Dicky Septriadi, to integrate expertise and resources in developing renewable energy education programs.

Through this collaboration, both parties are committed to implementing various activities such as seminars, workshops, the development of educational materials, field visits, and public campaigns through mass media and digital platforms. The partnership between Unpad and Pertamina NRE serves as a tangible example of synergy between academia and the national energy industry in supporting sustainable energy transformation and achieving the *Net Zero Emission 2060* target. Through strategic communication approaches, Unpad strengthens its contribution to fostering public awareness and participation in the use of clean energy, in line with Sustainable Development Goal (SDG) 7: Affordable and Clean Energy.





Unpad Leads by Example: Pioneering Solar Energy Innovation to Drive Indonesia’s Sustainable Future

Universitas Padjadjaran has demonstrated its strong commitment to the use of clean energy through the inauguration of a Solar Power Plant (PLTS) at the Jatinangor Campus on October 4, 2024. The development of this solar power facility is the result of collaboration between Unpad and PT Empat Mitra Indika Tenaga Surya (EMITS) as a concrete step to support the transition toward green energy. This initiative aligns with Unpad’s Core Scientific Pattern (Pola Ilmiah Pokok), “*Bina Mulia Hukum dan Lingkungan Hidup dalam Pembangunan Nasional*” (“Noble Development of Law and the Environment in National Development”), which emphasizes the importance of balance between development and environmental preservation. Through the implementation of the solar power system, Unpad aims to reduce its dependence on fossil fuels and lower carbon emissions, while serving as a role model for other educational institutions in adopting renewable energy technologies.

The Vice Rector for Research and Innovation of Unpad, Prof. Dr. Ir. Hendarmawan, M.Sc., stated that the establishment of the solar power plant is a tangible form of green energy implementation and a reflection of the university’s commitment to environmental preservation. According to him, the operation of this facility not only demonstrates Unpad’s serious concern for environmental issues but also strengthens the university’s role as an Eco Campus icon in Indonesia. The use of solar energy within the campus environment is expected to inspire both educational institutions and other organizations to transition toward more sustainable and environmentally friendly energy sources.

Through this initiative, Unpad reaffirms its position as a pioneer in sustainable energy transformation within the higher education sector. The installation of the solar power system on campus represents a concrete manifestation of the university’s support for achieving Sustainable Development Goal (SDG) 7: Affordable and Clean Energy, while also contributing to Indonesia’s national target of achieving *Net Zero Emission 2060*. By utilizing solar energy as an alternative power source, Unpad not only creates a positive environmental impact but also strengthens a culture of sustainability among its academic community.



Unpad Builds Awareness on Energy Innovation and Independence for a Sustainable Future

Universitas Padjadjaran continues to demonstrate its commitment to supporting the transition toward clean energy and national energy independence through the organization of the Drilling Innovation Forum 2024, themed “Empowering Drilling Innovation for Sustainable National Energy Security,” held at Bale Sawala, Rectorate Building, Unpad Jatinangor, on November 14, 2024. The event featured Dr. Syaiful Kurniawan, Director of Marketing and Development at Pertamina Drilling Services Indonesia, as the keynote speaker, alongside VP of Rig Services Operation, Komedi, and Manager of Human Capital Development, Kartini Karim. The forum discussed the importance of technological innovation and cross-sector collaboration in supporting sustainable national energy security, in alignment with the global commitment to reducing carbon emissions and advancing renewable energy development.

In his presentation, Dr. Syaiful emphasized that global energy consumption will increase significantly by 2050, while fossil energy sources, which still dominate today, are non-renewable and produce high carbon emissions. Therefore, strategic efforts are needed to accelerate the development of new and renewable energy (NRE) and technological innovations that promote energy efficiency. He also highlighted the importance of achieving energy independence in Indonesia to reduce dependence on oil imports, allowing state budget resources to be redirected toward sustainable energy development.

Through this forum, Universitas Padjadjaran plays an active role as an academic platform that brings together students, researchers, and industry professionals to discuss innovative solutions for the future of national energy. This activity reflects Unpad’s contribution to advancing knowledge and technology that support Sustainable Development Goal (SDG) 7: Affordable and Clean Energy, with a focus on innovation, collaboration, and education aimed at achieving Indonesia’s future energy independence.



Empowering Rural Sustainability: Unpad's Solar Energy Innovation Supports Clean Energy Transition in Cilayung Village

The implementation of the solar-powered RAS system has generated multiple positive impacts, including improved energy efficiency, enhanced environmental quality, and greater local energy independence. This initiative exemplifies Universitas Padjadjaran's dedication to fostering community empowerment through clean energy innovation and underscores the university's contribution to achieving Sustainable Development Goal 7: Affordable and Clean Energy.



Universitas Padjadjaran, through the Department of Physics and its Community Service Program (KKN), has taken a significant step toward advancing renewable energy innovation and rural sustainability by installing solar panels in Cilayung Village, Jatinangor, on August 30, 2024. This initiative, carried out in collaboration with local village authorities and Unpad students, provides an alternative power source for a Recirculating Aquaculture System (RAS) used in catfish farming. The system utilizes solar energy to operate water filtration technology, ensuring continuous clean water circulation essential for sustainable aquaculture practices.

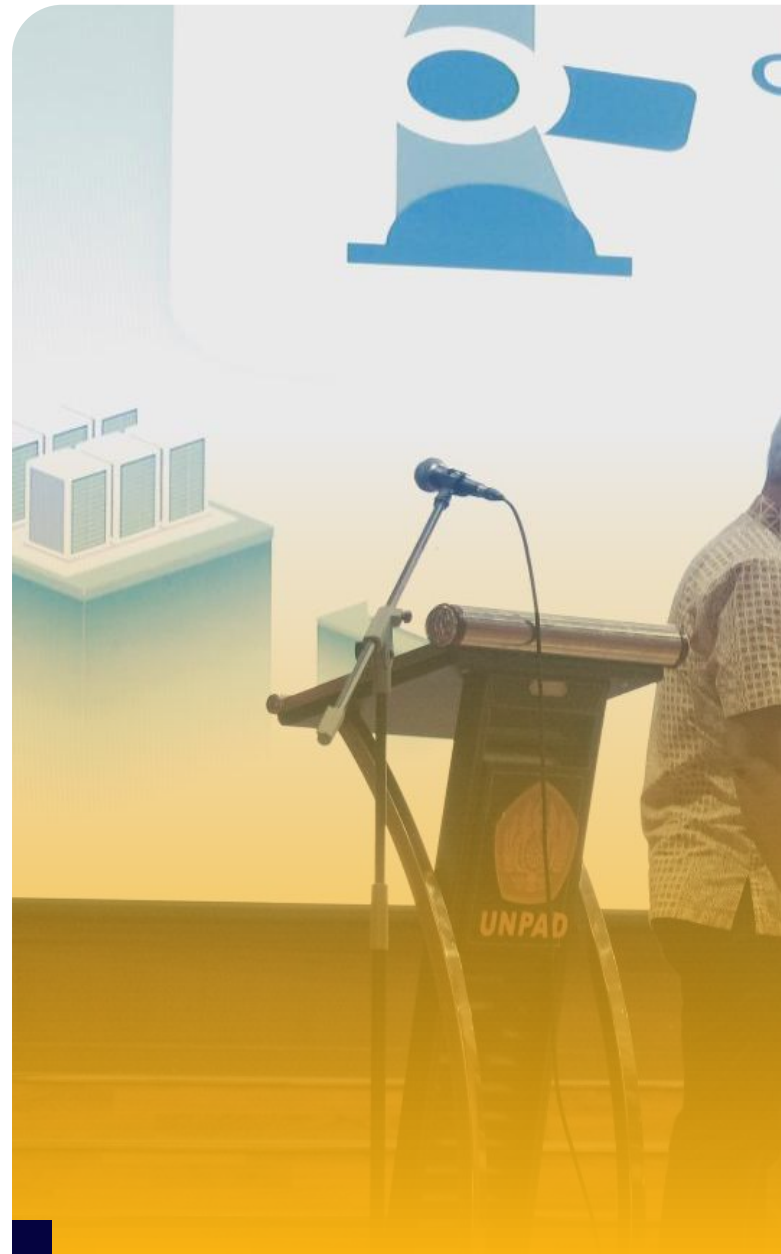


This program supports both SDG 6 (Clean Water and Sanitation) by maintaining water quality and SDG 7 (Affordable and Clean Energy) through the use of renewable solar energy. It serves as a real-world application of green energy technologies in community-based development while also offering students hands-on experience in implementing environmentally sustainable innovations. The project reflects Unpad's academic commitment to integrating science, technology, and social engagement in pursuit of sustainable energy solutions.



Advancing the Clean Energy Transition: Unpad's National Seminar Futura 2024 Strengthens Commitment to SDG 7

Universitas Padjadjaran, through the Electrical Engineering Student Association (HMTE) of the Faculty of Mathematics and Natural Sciences (FMIPA) in collaboration with the Student Energy Council (DEM), demonstrated its strong commitment to promoting clean and sustainable energy transition by organizing the National Seminar Futura 2024 under the theme *“Utilizing Renewable and Non-Renewable Energy to Achieve Net Zero Emission 2060.”* The event was held on November 9, 2024, at Graha Sanusi Hardjadinata, Unpad Dipatiukur Campus, with the support of several strategic partners including PT Indonesia Asahan Aluminium (Inalum), Pertamina New & Renewable Energy (Pertamina NRE), PT PLN, PT Pertamina Hulu Indonesia, Allobank, Megaland Artha Sentosa, and Gojek.



This seminar served as a collaborative platform to enhance public understanding and awareness—particularly among the younger generation—about the importance of supporting Indonesia’s energy transition toward the Net Zero Emission 2060 target. The event was officially opened by Unpad Vice Rector for Research, Collaboration, and Marketing, Prof. Rizky Abdulah, S.Si., Apt., Ph.D., and FMIPA Vice Dean for Academic and Student Affairs, Yudhie Andriyana, M.Sc., Ph.D., who emphasized the critical role of innovation and youth engagement in addressing future energy challenges.



The seminar featured expert speakers from various sectors, including Pertamina NRE, PT Inalum Hydro Power, the Directorate General of New, Renewable Energy and Energy Conservation (EBTKE), and the Center for Energy Security Studies, who discussed strategies and innovations in renewable energy development, government policies, and industry contributions to sustainable energy advancement in Indonesia.

The event attracted more than 200 participants, ranging from secondary school students to university students, and was complemented by TechnoFest, an interactive technology exhibition featuring organizations and startups such as U-Tech, Irostech Solusi Inteligen, and Oprobooth360. Through this event, Universitas Padjadjaran reaffirmed its contribution to raising youth awareness on the importance of clean and efficient energy use, aligning with Sustainable Development Goal (SDG) 7: Affordable and Clean Energy. The National Seminar Futura 2024 stands as tangible evidence of Unpad's active role in educating society and strengthening academic-industry collaboration to accelerate the transformation toward a sustainable energy future in Indonesia.