



Australia Awards

Australia Awards Short Course Renewable Energy for Remote Communities



The participants of Renewable Energy for Remote Communities with the Murdoch University delivery team – a course building on the shared ambition of Australia and Indonesia to cooperate more closely to enable a just transition to low-carbon economies.

The Australia Awards in Indonesia (AAI) Short Course (SC) **Renewable Energy for Remote Communities** was designed to support remote communities in Eastern Indonesia in developing renewable energy solutions through microgrids and stand-alone power systems (SAPS). The course provided extensive multidisciplinary facet by assessing the regulatory, economic, environmental, and social aspects of renewable energy systems, including lesson learn and insights from First Nations projects.

The course was attended by 25 mid to senior-level participants comprised of officials from the Ministry of Energy and Mineral Resources, state-owned enterprises PLN, microgrids businesses and associations, NGOs, as well as academia.

The course was delivered by Murdoch University's Course Leader **Professor Tania Urmee** and Co-Leaders **Associate Professor GM Shafiullah** and **Dr Martina Calais**. The course comprised of classroom-based sessions, site visits to relevant microgrid and SAPS sites, continuous mentoring sessions, and opportunities for Q&A and discussions.

This program also acknowledged the importance of bilateral cooperation between Australia and Indonesia to enable transition to low-carbon economies. A range of specialist guest speakers from academia, government and private sectors were invited to exchange of ideas, foster collaboration and spark new partnerships

Pre-course workshop

Professor Tania Urmee and Associate Professor GM Shafiullah joined the participants in Tambolaka, Indonesia for the 3-day pre-course workshop. The workshop included presentations on renewable microgrids and SAPS in Australia and Indonesia, site visits to ACCESS solar PV microgrid project and networking opportunities with industry experts and fellow participants.

Course schedule

- Pre-Course Workshop in Tambolaka, southwest Sumba, on 6 – 8 August 2024
- In-Australia Program in Perth on 2 – 14 September 2024
- Online Award Project Mentoring Sessions between September and December 2024
- Post-Course Workshop in Mamuju, West Sulawesi, from 7-9 January 2025



Participants attending an onsite visit ACCESS microgrid project at Watukarere, Sumba.





Participants attending site visit through various microgrids and SAPS sites in Perth and remote communities in Western Australia.

In Australia Site Visit

During the In-Australia program, participants had the opportunity to visit a variety of innovative renewable microgrids and SAPS systems. Site visits included:

- Magellan Power and AVID GEG Group – Perth, WA
- Gum Valley Resident – Fremantle, WA
- Fremantle East Village Community – Fremantle, WA
- Denmark Eco Village – Denmark WA
- Denmark Community Wind Farm – Denmark WA
- Walpole pumped Hydro – Walpole WA
- Witchcliffe Ecovillage
- Peel Business Park – Nambeelup, WA

Post-course workshop

Participants joined Dr. Martina Calais in Mamuju, Indonesia for the post-course workshop. Over 3 days, participants completed the final workshop activities, delivered project presentations and visited to PLTS Karampuang. The Australian Consul-General of Makassar, Mr. Todd Dias, and the Acting Governor of West Sulawesi Province, Bahtiar Baharuddin, attended the workshop.

At post-course workshop in Mamuju



Participants projects

Course participants were required to prepare Award Projects to implement what they have learned in-class and during site visits. These projects were continuously reviewed and discussed with their group mentor throughout the course. Projects included:

- Impact Assessment of Renewable Energy & Diesel for Productive Use in Rural Community – A Just Transition Framework Analysis
- Containerized PV Short Term Leasing for Watugalang Village
- Curriculum design for training in operation and maintenance of mini grids (Hybrid Solar PV - Diesel generation)
- Study on stand-alone power system for sustainable energy access in Oesusu village, NTT
- Feasibility Study of a Solar-Powered Water Pump for Household and Irrigation Systems in Katombu Hamlet, Ngadubolu Village, Central Sumba Regency
- Preliminary Design of SMKN 1 Kefamenanu Vocational School with Stand Alone Power System Using Solar Photovoltaic

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Testimonials

"The course offers a vast array of valuable information, covering a broad spectrum of topics that are both practical and insightful. It not only equips learners with in-depth theoretical knowledge but also provides real-world applications, ensuring a well-rounded understanding"

"The materials presented are designed to enhance comprehension and foster critical thinking, making the learning experience highly engaging and relevant for those looking to apply the knowledge in professional settings. Additionally, the course dives into current trends and innovations, allowing participants to stay updated with the latest advancements in the field."

"All of the tutors are exceptional and consistently encourage active student participation through questions. Additionally, they demonstrate a genuine enthusiasm for the subject matter, which contributes to an engaging and stimulating learning environment."

"Connecting with industry professionals and government officials offered a unique opportunity to discuss innovative solutions and share ideas for future collaborations"

"Learning about the similarities and differences between Australia and Indonesia, particularly in the context of energy policy and environmental strategies, was invaluable for understanding how to adapt these insights back to Indonesia's context."



Participants attending the Opening Ceremony on Murdoch Campus (top), Networking Event with Industry Representatives (middle), and Farewell Dinner at Fremantle Sailing Club (bottom)