

Annual Report on SDG7 Affordable and Clean Energy

7.4 Energy and the Community

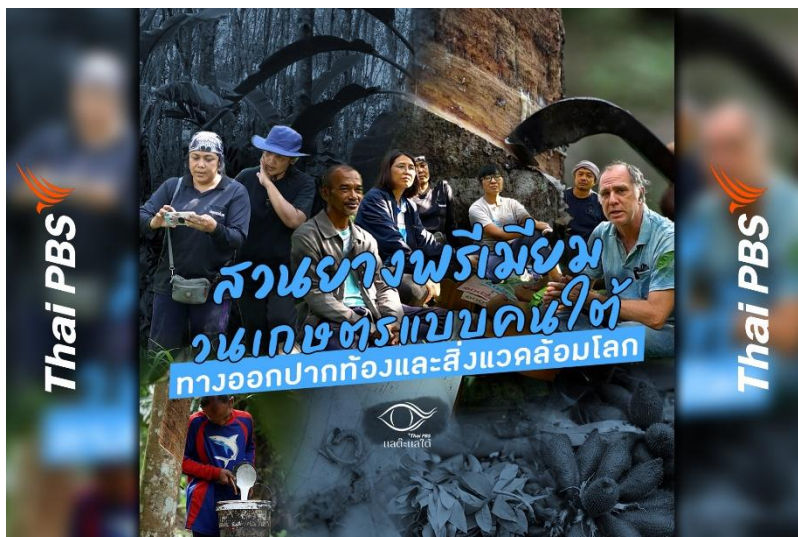
7.4.1 Local community outreach for energy efficiency

Thaksin University actively engages with local communities to promote **energy efficiency**, **renewable energy use**, and **sustainable energy awareness**. Several outreach initiatives have been implemented, demonstrating the university's commitment to supporting communities in reducing energy consumption, improving energy literacy, and adopting clean-energy technologies.

Key Activities and Evidence

1) Clean Energy Innovation for Sustainable Communities Project

Thaksin University, in collaboration with local communities in Ban Yuan Yang, Bang Klam District, Songkhla Province, has implemented a **community-based clean energy innovation project**. Initiated by academic lecturers from the Faculty of Science and Digital Innovation, this research project aims to **introduce and adapt renewable energy technologies**, i.e., biomass and bioenergy systems, solar-powered water pumping systems, that enhance local energy sustainability.



The research project includes technology transfer activities, enabling households in Ban Yuan Yang, Bang Klam District, Songkhla Province to **adopt practical renewable energy technologies**. With a strong emphasis on biogas fermentation systems, solar-powered water pumping systems, biomass stoves, and pyrolysis-based cooking systems. Findings from the economic and social impact assessment indicate that usage of renewable energy technologies in 19 demonstration households led to an annual cost reduction of approximately 27,000 Baht.

An additional societal benefit was also enhanced social cohesion within the community, an increase in community knowledge of **renewable energy technologies**, leading to the development of community-based trainers who can disseminate knowledge to neighbouring communities.

Collectively, these outcomes illustrate how the adoption of **clean energy solutions** can improve household income, strengthen community resilience, and elevate overall quality of life.



2) Solar Roof and Green Energy Expansion

In addition to campus-based **solar energy infrastructure**, Thaksin University is working to expand the benefits of **renewable energy** to surrounding communities. The installation of solar rooftop systems at both the Phatthalung and Songkhla campuses serves as an operational model for clean-energy adoption, while also functioning as a platform for knowledge transfer and community engagement.

These efforts form part of Thaksin University's broader strategy to encourage community-level renewable energy independence and to promote the transition towards low-carbon energy systems in Southern Thailand.



3) Community Awareness Campaigns - TSU Green Heart

Thaksin University promotes widespread awareness of **carbon reduction and sustainable energy practices** through the TSU Green Heart campaign, an institutional initiative aimed at developing **pro-environmental awareness** amongst staff and students.

Staff and students are informed and trained on carbon reduction and energy-saving practices through university-wide campaigns, workshops, training sessions and media that are also shared with local communities



TSU GreenHeart Thaksin University
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TSU GREEN HEART 2025
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