

SEIAPI May 2025 Newsletter

RE NEWS

Sustainable Energy Industry Association of the Pacific Islands



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Fiji Rural Electrification Projects to Benefit Remote Communities

The Fiji Rural Electrification Fund (FREF) is set to deliver solar-powered electrification systems to over 20 remote villages soon. These projects will be funded by a donor consortium comprising of New Zealand, Australia, and the United Kingdom, with a total budget of US\$7.7 Million (FJD \$17.42 Million).

Phase 1 – Completion by December 2025

The first phase will deliver full solar mini-grid systems to the following three priority sites:

- Yacata Island, Cakaudrove Province
- Yadrana Village, Lakeba Island, Lau Province
- Salia Village, Kioa Island, Cakaudrove Province

Phase 2 – Commencing January 2026

The second phase will scale up deployment to 17 additional communities across the following maritime provinces: Lau ; Lomaiviti ; Kadavu

National Energy Transition Goal

This program supports the Fijian Government's commitment to transitioning rural and maritime communities away from expensive, polluting diesel-based power systems. By replacing them with solar-powered mini-grids, FREF aims to:

- Reduce energy costs for households
- Improve reliability and access
- Enhance climate resilience
- Support Fiji's National Determined Contribution (NDC) and National Energy Policy targets.



USP Sustainable Energy Training Centre Kick Off Meeting



A hard-fought SEIAPI initiative is finally about to be implemented. The Regional Sustainable Energy Training Centre Project kick-off meeting was held at 3.30pm on Monday, 19 May 2025 at the Estates and Infrastructure (E&I) Conference Room, USP in Suva, Fiji. Members present included USP Estates and Infrastructure Director and his project and design team, CBS Power Solutions Construction team, USP Pacific TAFE Director, and SEIAPI Secretary (acting as the Donor representative). The stakeholders are expected to meet every week to establish seamless and prompt implementation.

The project is donor-funded. The site mobilisation began on 21st May 2025 with commissioning expected around the end of January 2026.

The SEIAPI Executive Officer, Geoff Stapleton had played an instrumental role in arranging the funding to set-up a regional facility that will benefit the Pacific RE workforce through provision of accredited training.



**SAVE ENERGY!
HARNESS RE
TECHNOLOGIES!
GO SOLAR!**



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SEIAPI welcomes new member

A new member has recently joined:

- Krishn Raj (Industry Member)

To join SEIAPI, please visit:

<https://www.seiapi.com/joining-seiapi/>

Electrifying PNG: challenges and opportunities for decentralised solar

(Article credit: Martin Davies and Christian Lohberger)

Papua New Guinea is facing an electricity access crisis. Only 14% of its population has access to the grid, and even those connected experience unreliable and costly power. With rugged terrain, scattered rural communities and a financially stressed national utility, extending the central grid to meet the government's 2030 electrification target of 70% will be challenging.

Decentralised solar systems, whether individual home kits or small-scale mini-grids, offer a scalable, cost-effective solution to PNG's electrification challenge. Solar technology is getting cheaper and PNG has abundant sunshine. What is needed is the institutional, financial and technical ecosystem to make decentralised solar work at increased scale.

The article reports that PNG Power Ltd (PPL), the national utility, is struggling. It operates an ageing grid, sells power below the cost of production and faces payment arrears from government departments. Outside investors are wary of engaging with PPL due to poor payment security and the lack of sovereign guarantees.

PNG's power sector suffers from fragmented oversight, complex land-tenure arrangements and regulatory uncertainty. Independent power producers are discouraged from investing in grid-based expansion by legal grey areas, foreign exchange shortages that affect equipment imports and profits, and a procurement system that lacks transparency.

Extending the grid to rural areas is expensive. Building power lines through mountainous terrain is difficult and capital costs for power plants in PNG can be two to three times higher than in comparable countries.

Decentralised solar avoids many of the grid's problems such as:

- There is no need for transmission lines
- Decentralized systems that incorporate batteries build resilience

- Decentralised solar could play a major role in expanding energy access across PNG

For further information, please refer to the full article available from:

<https://devpolicy.org/electrifying-png-challenges-and-opportunities-for-decentralised-solar-20250516/>



FCCC soon to shift to digital licensing for renewable energy projects

The Fijian Competition and Consumer Commission (FCCC) is revolutionising the renewable energy sector with its move towards digital licensing for solar and off-grid systems.

This shift is expected to streamline the process, making it easier and more efficient for investors in the renewable energy sector.

According to FCCC, while the number of licenses issued has dropped from 91 in 2020 to 53 in 2022, the change is part of a broader push to modernise and simplify the licensing process for solar and off-grid systems.

Currently, all power generation systems must have licenses for installation and power generation valid for five years. It is expected that with digitalisation there will be a notable change within FCCC's licensing role as they are now moving towards developing digital systems with proper processes and requirements clearly outlined for solar or off-grid investors.

The commission's digital transition in renewable energy licensing should help to boost the sector's growth in Fiji by simplifying processes and reducing delays.

The FCCC is collaborating with the Market Development Facility (MDF) following recent market research conducted by MDF and Solar Hub Fiji on urban household and business demand for solar energy in the Suva-Nausori area. The survey revealed that nearly 70 per cent of households were willing to invest in solar energy systems using their own funds, while 50 per cent indicated an interest in loans or subscription models.

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FSM National Energy Policy 2024–2050

The Federated States of Micronesia (FSM) National Energy Policy 2024–2050 sets out a strategic framework focusing on energy access and affordability for all. It aims to address the nation's energy challenges and secure reliable, sustainable, and cost-effective energy services. The policy outlines the national energy landscape, priorities, and targets. It provides guiding principles to help decision-makers allocate resources effectively, ensuring that through extensive consultations, the populace's desires for access to affordable and reliable energy is met.

By emphasizing accessibility, the policy aims to bridge the energy divide and empower remote outer island communities and households isolated from the main grid with crucial infrastructure services needed for growth. Providing energy affordability across the four states is a priority, given that FSM residents currently face one of the world's highest electricity tariffs, with a weighted average of USD 0.52 (about F\$1.15) per kilowatt-hour (kWh). In some island communities, the cost exceeds one US dollar per kWh. The policy promotes affordability and renewable energy concurrently strives to implement measures that promote cost-effective energy while improving energy efficiency and sustainability.

By prioritizing affordability, the policy aims to reduce the financial burden on households and businesses, while promoting economic growth and development.

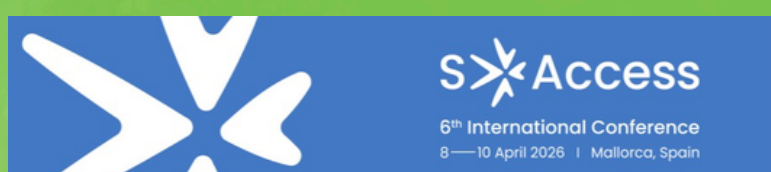
Solar Workshop in Samoa



A solar PV workshop was held on 13th May 2025 at the Lava Hotel Conference Room in Samoa that brought together community members, church leaders, business owners, and the public. The primary objective was to raise awareness about solar energy technologies and provide participants with information to make better informed decisions about transitioning to solar-powered energy. Greenology Samoa, in partnership with Solar King New Zealand, hosted the Solar Systems Awareness Workshop.

Representatives from Solar King New Zealand shared valuable insights and success stories from solar projects across New Zealand and the Pacific. Their contributions provided practical guidance for those considering solar energy for residential or commercial use.

For more information, please refer to the Government of Samoa facebook page.



International Conference

6th International Conference on Solar Technologies and Hybrid Mini-Grids to improve energy access

SAVE THE DATE

8-10 April, Mallorca, Spain

www.energy-access-conferences.com



Regional Conference

32nd PPA Annual Conference and Trade Exhibition – Koror, Palau

Koror, Palau from 22 September – 25 September 2025

Please visit: www.ppa.org

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SEIAPI Executives meet Stakeholders in Fiji

The SEIAPI Executive Officer, Geoff Stapleton attended a series of meetings in Fiji from 25th to 29th May during his recent visit. The main objective of his visit was to discuss the SEIAPI collaboration with USP Pacific TAFE. An MOU between the two organizations on the proposed Pacific Regional Sustainable Energy Training Centre is expected to be deliberated and finalized in the coming days to foster partnerships and ensure sustainability of the training centre. Geoff was excited to witness the building contractor, CBS Power Solutions mobilizing to the site with the construction site cordoned off.



Geoff Stapleton and Sandip Kumar (SEIAPI Secretary) also met CBS Power Solutions for the discussion on building construction and other relevant items. Another important meeting took place with Market Development Facility (MDF) that included SEIAPI Chair, Peter Johnston and Geoff Stapleton meeting MDF representatives to discuss on their collaboration.

Other meetings were also attended with International Solar Alliance (ISA), Centre for Appropriate Technology and Development (CATD), Pacific Power Association and UNDP FREF in regards to potential collaboration and training.



Geoff (SEIAPI) and Amit Singh (CBS Power Solutions)



Rajeshni (ISA), Peter (SEIAPI), Sandeep (ISA), Geoff (SEIAPI) and Sandip (SEIAPI)

Standards Corner

In the recent months, SEIAPI has been conducting a webinar related to the current Australia and New Zealand Standards and this will also be done on the USA National Electrical Code. To support these webinars, the newsletter will include this standards corner highlighting an installation issue identified during a site visit in the Pacific that does not comply with relevant standards, SEIAPI guidelines or international best practices.



The above array installed within the last 6 months has an open circuit voltage of 144V d.c.. The array cables are single insulated and in addition to the cables in the photo on the right show cables that are not mechanically protected. This system does not comply with the following standard requirements:

- AS/NZS 5033:2021 Clauses 4.4.3.3, and 4.4.6.2 require that the array cables are double insulated
- AS/NZS 3000:2018 Clause 3.9.4.1 and AS/NZS 5033:2021 Clauses 4.4.3, 4.4.5 require the array cables between the array and PCE to be mechanically protected

Below is a system that does comply with the requirements having double insulated cables (note stainless steel cable ties - also a requirement) and array cables in conduit including the required signage.



Next Standards Webinar: 12 Noon Fiji Time
Thursday 12th June, 2025

Topic: AS/NZS 5139 Electrical installations - Safety of battery systems for use with power conversion equipment.

This will be the first of 4 to 5 webinars to cover AS/NZS 5139

For more updates, please visit
<http://www.seiapi.com> or email on

info@seiapi.com/secretariat@seiapi.com for any queries and comments.

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