



Hawai'i Natural Energy Institute Research Highlights

International Support

Energy Systems Regulatory and Technical Support for Pacific Island Countries

OBJECTIVE AND SIGNIFICANCE: Through funding under the APRESA grant from the U.S. Office of Naval Research, HNEI GridSTART is providing technical and regulatory/policy support to various Pacific Island Countries (PIC), including the Republic of Palau (“Palau”), Cook Islands, Commonwealth of the Northern Mariana Islands (CNMI), and Republic of the Marshall Islands (RMI).

BACKGROUND: HNEI’s support for the various PICs are as follows:

- *Palau:* HNEI GridSTART is supporting Palau’s Energy and Water Administration (PEWA) in developing key energy regulatory framework elements, modeling the national electric grid to facilitate increasing penetration of variable renewable energy, and developing technical grid interconnection requirements for new renewable generation.
- *Cook Islands:* The Cook Islands Economic Development Strategy includes a national renewable energy target of 60% by 2030, with a national commitment to a 100% renewable energy future. In support of these goals, HNEI is assisting the Cook Islands’ power company, Te Aponga Uira (TAU), with capacity building on a range of energy transition topics.
- *CNMI:* Although efforts have been made to integrate renewable energy into its power grid, CNMI still heavily depends on imported fossil fuels for its energy generation. HNEI GridSTART is providing technical support to CNMI through a collaboration with Commonwealth Utilities Corporation (CUC), a government-owned utility company.
- *RMI:* As a country highly vulnerable to climate change due to its heavy dependence on imported fossil fuels for energy generation, RMI is developing an energy law and supporting regulations that must be promulgated to implement RMI’s 2018 energy roadmap.

PROJECT STATUS/RESULTS: In September 2023, HNEI GridSTART hosted two trainings for PIC representatives in Hawai’i: 1) a three-day training program for the newly appointed Director of PEWA and Palau electric utility staff on a variety of energy transition policies and regulations and 2) a one-day training program for members of TAU, including Board members, the Chief Executive Officer, and the

Chief Engineer. Topics covered during the training sessions included: 1) Hawai’i’s energy transition, 2) grid modernization, 3) battery energy storage systems, and 4) a case study on the distributed PV integration on Moloka’i. Discussions are ongoing with TAU to further define HNEI support across a wide range of energy and regulatory needs.

At the Pacific Power Association’s (PPA) 30th Annual Conference in Saipan, HNEI GridSTART met with a CUC Board member who expressed interest in HNEI support for their renewable integration plans. Follow-up meetings with CUC will be scheduled to identify and prioritize areas of support.

HNEI also met with representatives from RMI’s National Energy Office (NEO) during the conference, which requested a review of and comments on RMI’s new energy legislation and regulations. Further discussions with NEO will be held to finalize the scope of support.

Based in part on interactions with other stakeholders at the PPA conference, HNEI GridSTART is also engaged in discussions with regional stakeholders to support additional energy transition and renewable energy project needs in Samoa, Tonga, the Federated States of Micronesia, Nauru, Kiribati, Tuvalu, and Niue.

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