



# Hawai'i Natural Energy Institute Research Highlights

## International Support

### USAID Papua New Guinea Electrification Partnership (PEP) Activity

**OBJECTIVE AND SIGNIFICANCE:** HNEI is providing technical assistance under subcontract to the Research Triangle Institute (RTI International or RTI), the prime contractor implementing the United States Agency for International Development (USAID) Papua New Guinea (PNG) Electrification Partnership (PEP) program, that aims to support PNG's enhanced electric connectivity and its goal of connecting 70% of its population to electricity by 2030. Through the expansion of reliable and affordable electricity, the partnership will help advance inclusive growth, development, and empowerment in communities throughout the country.



Figure 1. Ela Beach, Port Moresby, PNG.

**BACKGROUND:** In November 2020, the U.S. government launched the five-year, \$57 million USAID-PEP program to support PNG in increasing reliable electric connectivity to its people. HNEI is contributing to this partnership by supporting RTI to: (i) improve the financial viability and operational efficiency of the country's electricity provider, PNG Power Limited (PPL); (ii) develop viable off-grid electrification models; and (iii) improve PNG's energy regulations. In particular, HNEI is supporting RTI on end-to-end utility transformation of PPL by improving competitive procurement via focus group discussions with selected government and private sector representatives and supporting the conduct of due diligence on the existing independent power producer pipeline. HNEI is supporting RTI in its effort to develop viable off-grid electrification models, including developing and executing a private sector engagement strategy for off-grid companies, building a portfolio of viable sites for off-grid electrification, and participating in stakeholder groups already working on off-grid regulations in PNG. Finally, for the demonstration of measurable improvement in PNG's energy regulator, HNEI's GridSTART team is assisting RTI with improving the

national regulatory framework for off-grid electrification and a process for stakeholder engagement to inform and implement enabling policies and regulation.



Figure 2. Rural villages in PNG.

**PROJECT STATUS/RESULTS:** HNEI GridSTART's support of USAID-PEP to date has spanned a range of tasks, including: (1) reviewing, commenting on, and editing the draft PNG Off-Grid Regulation and underlying Off-Grid Guidelines; (2) reviewing and commenting on the appropriateness for PNG's National Institute of Standards and Industrial Technology (NISIT) to adopt certain IEC standards regarding renewable energy and hybrid systems for rural electrification; and (3) participating in numerous online meetings and workshops with stakeholders including RTI, USAID-PEP, the PNG National Energy Authority, NISIT, and the National Association of Regulatory Utility Commissioners. Currently, HNEI is reviewing the PNG Independent Consumer and Competition Commission's (ICCC) existing Third-Party Access (TPA) Code and Grid Code.

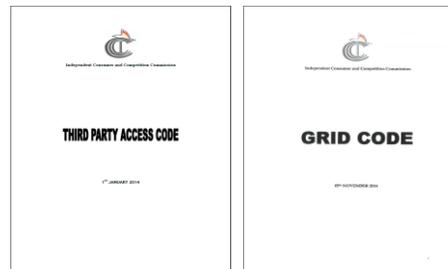


Figure 3. PNG TPA Code and Grid Code under review.

HNEI is tasked to provide recommended updates, comments, and edits to the codes based on industry best practices applied in the PNG context for regulatory adoption.

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