OBJECTIVE AND SIGNIFICANCE: HNEI is providing technical assistance under subcontract to the Research Triangle Institute (RTI), the prime contractor implementing the United States Agency for International Development (USAID) Papua New Guinea (PNG) Electrification Partnership (PEP) program which 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, PEP will help advance inclusive growth, development, and empowerment in communities throughout the country.

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: 1) improve the financial viability and operational efficiency of the country’s electricity provider, PNG Power Limited (PPL); 2) develop viable off-grid electrification models; and 3) improve PNG’s energy regulations.

PROJECT STATUS/RESULTS: 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, the National Energy Authority (NEA), HNEI’s GridSTART 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.

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; 3) participating in numerous online meetings and workshops with stakeholders including RTI, USAID-PEP, NEA, NISIT, and NARUC; and 4) conducting virtual training on HOMER software to support the modeling/analysis of a mini-grids/off-grid power systems in remote areas of the country.

Most recently, HNEI has reviewed and recommended updates to PNG’s Third-Party Access Code, Electricity Industry Regulations, and Grid Code for transmission-level interconnections, and also recommended interconnection standards for inverter-based resources connected at the distribution level. In-person presentations of HNEI’s recommendations will be delivered in Port Moresby to RTI, USAID PEP, NEA, PPL and PNG independent power producers in November 2022.

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