



Hawai'i Natural Energy Institute Research Highlights

International Support

Support to the Energy Secure Philippines (ESP) Program

OBJECTIVE AND SIGNIFICANCE: HNEI, under contract with the Research Triangle Institute (RTI), provides technical and regulatory support to the Energy Secure Philippines (ESP) Program, the Philippines Energy Regulatory Commission (ERC) and Department of Energy.

BACKGROUND: This collaboration builds on earlier efforts under Clean Power Asia and the Office of Naval Research's Asia Pacific Regional Energy Systems Assessment (APRESA) grant, through which HNEI developed national frameworks for off-grid net energy metering (NEM) and battery energy storage systems (BESS), led multiple capacity-building workshops and strengthened institutional capacity to enhance power sector resiliency. The \$34 million ESP Program seeks to advance economic growth and energy resilience by catalyzing \$750 million in private investment for 500 MW of new capacity.

PROJECT STATUS/RESULTS: HNEI's GridSTART provided assistance emphasizing advancing policy, regulatory frameworks, and technical capacity in off-grid NEM, delivering detailed reports, draft rules and capacity-building sessions in Manila. These initiatives helped shape national policy direction on distributed energy and storage, supporting ESP's mandate for modernization and sectoral resilience.



Figure 1. Presentation of NEM and BESS reports to the ESP and the ERC workshop in Manila in 2022.

HNEI continued assisting ESP and partner agencies through 2024 and 2025, broadening its technical scope and stakeholder reach. In early 2024, discussions with RTI refined the remaining scope of work to include: 1) a design review for an electric-powered fishing boat; 2) training sessions for select distribution utilities (DUs) and local government units (LGUs); 3) technical training for the Siargao

Women's Center; 4) a distribution system assessment for Siargao Electric Cooperative (SIARELCO); and 5) a resiliency assessment and conceptual strategies for the Armed Forces Philippines (AFP) General Headquarters at Camp Aguinaldo. Field visits to Manila, Bohol, Iloilo and Siargao in June 2024 enabled coordination with local leaders and helped align on technical priorities under the refined scope.

In August 2024, HNEI presented its energy resiliency assessment methodology to AFP stakeholders at Camp Aguinaldo, outlining initial findings and strategies for system vulnerability reduction. Then in November 2024, the team delivered two in-person trainings in Iloilo for the MORE Electric and Power Corporation and Negros Electric and Power Corporation, followed by a session for the Iloilo LGU on energy planning and technology integration. Together, these efforts strengthened institutional capacity at national and local levels.



Figure 2. HNEI and utility partners discussions in Iloilo.

Although certain planned activities, including the e-boat design review, select DU trainings, and Siargao capacity-building workshops were cancelled after USAID operations suspended in early 2025, core technical deliverables were completed and foundations established for sustained impact. Work on the AFP resiliency framework was rescoped to ensure continuity of critical support in the deployment of Mobile Energy Systems at AFP Camp Aguinaldo. Despite these adjustments, collaborative achievements under ESP have helped build a more robust, resilient and adaptive energy sector for the Philippines.

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Contact: Leon Roose, lroose@hawaii.edu

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