



Hawai'i Natural Energy Institute Research Highlights

International Support

USAID Southeast Asia's Smart Power Program – Laos

OBJECTIVE AND SIGNIFICANCE: A Letter of Collaboration, initiated by Deloitte Consulting (Deloitte), the prime contractor for the USAID Southeast Asia Smart Power Program (SPP), was signed with HNEI on October 27, 2022. The USAID SPP is a \$40 million, five-year initiative with the goal of mobilizing \$2 billion in blended financing for clean energy infrastructure. The program sets out to drive economic growth and development in Southeast Asia, focusing on creating secure, market-oriented, and environmentally responsible energy sectors. The ultimate vision is to help the region achieve its target of net-zero greenhouse gas emissions by 2050.

Among the initial tasks outlined in the collaboration agreement, HNEI is providing support to Électricité du Laos (EDL) and the Lao Ministry of Energy and Mines (MEM) focused on enhancing power system resilience, implementing demand-side management/demand response (DSM/DR) strategies, and integrating variable renewable energy (VRE) resources into their transmission and distribution systems.



Figure 1. Abstract of Laos map.

BACKGROUND: USAID SPP is the regional successor program to USAID's earlier Clean Power Asia (CPA) program, under which HNEI GridSTART provided both collaborative (APRESA-funded) and CPA-funded support over the prior four years. Its primary goals included: 1) expanding energy capacity through the deployment of advanced energy systems, 2) increasing clean energy investments in the regional energy sector, and 3) enhancing regional energy trade. This was to ensure secure, market-driven energy sectors that support sustained economic growth. The program leveraged bilateral and multilateral partnerships, supported regional

initiatives, accelerated cross-border interconnection and power trade, and established training centers for energy practitioners to develop solutions that enable Southeast Asian countries to become self-reliant and achieve their sustainable development aspirations.

Following on the accomplishments of USAID CPA, USAID SPP plans to implement numerous new activities, such as establishing a Center for Competitive Procurement (CCP), conducting a resiliency assessment of ASEAN power utilities, and undertaking capacity development efforts to support them. Toward that end, Deloitte and HNEI GridSTART anticipate collaboration opportunities to leverage the comparative advantages of the USAID SPP and HNEI teams across all of SPP's task areas, including utility modernization, DSM/DR, energy innovation and emerging trends, competitive procurement, power trade, and grid integration.

PROJECT STATUS/RESULTS: In 2023, HNEI GridSTART delivered updated Feasibility Study Guidelines for wind, solar, and biomass energy projects in Laos. The team also provided an updated Grid Code for Laos that incorporates interconnection standards for inverter-based resources as well as updated interconnection standards for PV systems connected at the distribution level. Additionally, HNEI conducted two capacity building sessions in June and October 2023 for EDL and MEM staff, focusing on the updated Grid Code and distribution interconnection standards.



Figure 2. Capacity building session in Vientiane, Laos in June 2023.

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