



Hawai'i Natural Energy Institute Research Highlights

International Support

USAID Scaling Up Renewable Energy II (SURE II)

OBJECTIVE AND SIGNIFICANCE: Hawai'i Natural Energy Institute (HNEI) is providing technical assistance to the United States Agency for International Development (USAID) as a subcontractor under the Scaling Up Renewable Energy (SURE) II project. The project's objective is to assist partner countries in increasing the level of renewable energy and new technology into their electricity mixes, using a cost-effective, reliable, and environmentally-friendly methodology that enables countries to achieve greater self-reliance. Its expected outcomes include: increased renewable energy capacity, improved grid integration of renewable energy, increased competition for generation capacity, and dissemination of green procurement practices in project partner countries worldwide.

BACKGROUND: Between 2017 and 2020, the USAID SURE program helped 28 partner countries meet bold international climate commitments by accelerating their transition to more widely accessible, affordable, reliable, and sustainable energy that spurs economic growth and reduces emissions. In 2020, USAID launched the SURE II project, a five-year, \$29.7 million continuation of the SURE project that prepares partners to transform their energy sectors and reap financial, social, and environmental benefits. SURE II provides support under the following six task areas:

1. Strategic Energy Planning;
2. Competitive Procurement of Renewable Energy;
3. Grid Integration of Renewable Energy;
4. End of Life Management for Advanced Energy Technologies;
5. Renewable Energy Technology and Innovation Fund; and
6. Knowledge Management and Coordination with other USAID Projects and Initiatives.

Under the leadership of the prime contractor, Tetra Tech, Inc., HNEI's Grid Systems Advanced Research Team (Grid**START**) will engage in tasks 1, 2, and 3 to support partner countries seeking assistance under SURE II. HNEI will leverage its experience with effectively planning, procuring, and integrating renewable energy resources into power systems to provide among other services capacity-building

training to partner countries. In particular, HNEI will deliver the following for the supported tasks:

- **Task 1:** Provide training via webinars on strategic planning methods and approaches and resiliency assessments.
- **Task 2:** Support developing an action toolkit, a library of best practices and model auction documents and related training, and the design of pilot auctions for renewable energy resources.
- **Task 3:** Provide training via a grid integration webinar series on topics such as forecasting, storage, curtailment, ancillary services, grid modernization/digitization, advanced unit commitment and economic dispatch, flexibility, grid integration policies, and distributed solar integration.

Each task also includes the development of "2 pager" reports on best practices within the topics of resilience assessment, auction platforms, grid impact studies, renewable energy zones, flexibility assessment, variable renewable energy (VRE) forecasting, and roadmaps for grid modernization/digitization.



Figure 1. SURE program partner countries. (Cited from [SURE 2020 Annual Report](#)).

PROJECT STATUS/RESULTS: The SURE II project is in its work plan development stage and is working with USAID to identify its initial partner countries of focus and the areas where support is needed. HNEI is ready to deliver technical support in work plan execution.

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