

Connecting with PCREEE, EACREEE and EACREEE

Quality Infrastructure for Solar Photovoltaic and Solar Thermal

The STAR C project has formed a strong partnership with the GN-SEC centers, regional quality infrastructure bodies and their national focal institutions in PCREEE, EACREEE, and ECREEE. All regions are currently involved to some extent in regional standardization processes and work towards the adoption and gathering of key stakeholders. Although there has been progress regarding standardization of sustainable energy on national and regional levels, it is essential to establish trusted QI capabilities that will help create a fair competition platform for solar energy businesses in the regions. Such initiatives can assist countries to address their standardization needs sustainably and cost-effectively. All regions have a considerable potential for solar energy and a great interest in utility-scale, off-grid and distributed renewable energy systems. These include stand-alone and mini-grid applications. Additionally, they are making efforts to promote local sustainable energy entrepreneurship and innovation. The regions are highly committed to enhancing Quality Improvement (QI) frameworks for renewable energy and energy efficiency.

To strengthen the quality infrastructure (QI) frameworks of all regions, STAR C has assigned two International Consultancy firms - MicroEnergy International for Solar PV and ETA Management, Consultancy and Training Inc. for Solar Thermal. With the technical assistance of these two Consultancy Firms, setting up a quality infrastructure system is one of the most positive and practical steps that a developing nation can take on the path forward to developing a thriving economy as a basis for prosperity, health, and well-being. A quality infrastructure is a system contributing to governmental policy objectives in areas including industrial development, trade competitiveness in global markets, efficient use of natural and human resources, food safety, health, the environment, and climate change.

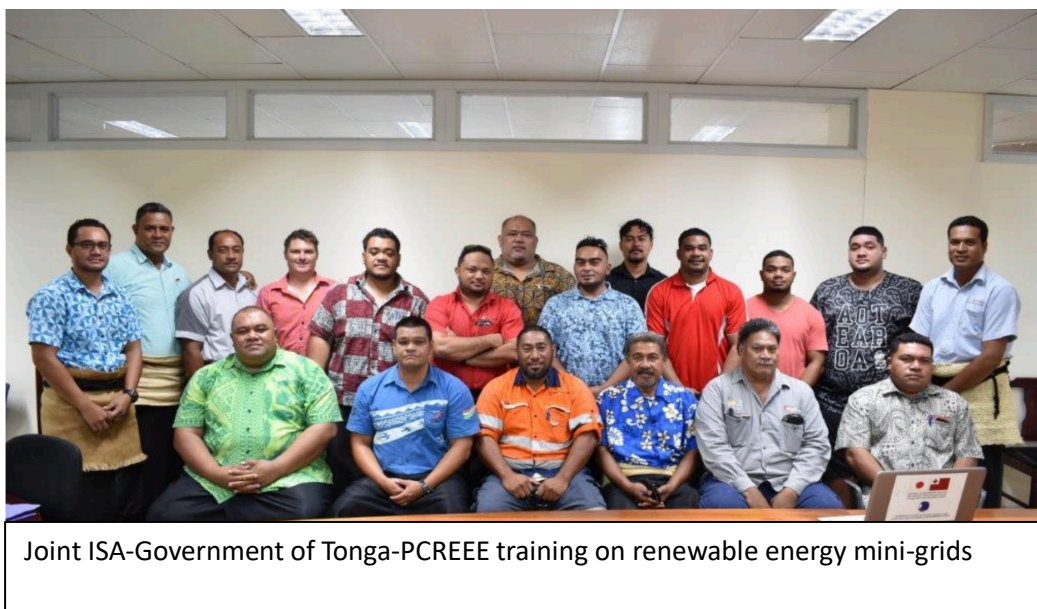
Both Regional QI frameworks for SPC and EAC are set to be finalized in October 2024 for adoption and application by the two regions in questions.

Solar PV

The Pacific Island Region currently follows international or Australia-New Zealand standards for renewable energy technologies, including photovoltaic (PV) systems. The region has published technical guidelines for various components of renewable energy technologies, including regional guidelines and standards for designing and installing solar PV systems in the PICTs. Additionally, the region has created System Installation Guidelines for the Pacific Islands (Grid-Connected PV System) and Harmonized Technical Guidelines for PV Systems in the Pacific Islands. However, these regional guidelines have yet to be implemented and would require national consultations to ensure acceptance, suitability, and sustainability before implementation.

The East African Countries (EAC) are working towards integrating and adopting renewable energy technologies, especially off-grid solar photovoltaic applications. However, the EAC region is facing challenges in recruiting qualified personnel with the technical skills required to install, maintain, and repair photovoltaic solar installations. Business skills are also limited, which means that customers lack accurate information on how to use the systems and perform basic maintenance tasks. While training, certification, and qualification for solar are being emphasized by multiple players in the EAC, only two countries, Kenya and Tanzania, have conducted market assessments or established standards for solar products and services. To avoid synchronization and system balancing issues in the future, a well-

structured approach and technical standards for both on-grid and off-grid connections must be clearly and transparently communicated to generators and enforced by system operators.



Source: <https://www.pcreee.org/portfolio?page=1>

Solar Thermal

In the ECOWAS countries, solar thermal applications are not receiving the same level of interest as other renewable energy sources such as photovoltaic solar, wind power, and hydroelectricity. Although

it is one of the few regions that have established targets for solar thermal penetration, it does not have a concrete position in national energy policy. There is a clear lack of promotion of its applications, and local people are not sufficiently aware of its benefits. Additionally, there is a shortage of private structures and specialized professionals for the supply, installation, monitoring, and maintenance of solar thermal systems in case of technical failure. It is therefore urgent to strengthen the technical capacities of professionals working in the solar thermal system sector. The implementation of QI will allow the use of equipment that complies with standards adapted to local conditions and energy efficiency codes.



Boosting Solar Thermal across ECOWAS

Source: <http://www.ecreee.org/news/boosting-solar-thermal-energy-across-ecowas>