

SUCCESS STORY

Creating a professional renewable energy industry in Nigeria through training



Chiwunma Anago, trainee of REEEP

The Renewable Energy and Energy Efficiency Project (REEEP) in Nigeria, funded by USAID and Power Africa, seeks to improve access to renewable energy (RE) technologies, improve access to finance for RE technologies and use RE technologies to improve various sectors such as health and agriculture. The project is designed to help mitigate climate change, reduce carbon emissions, increase economic opportunities, improve employment, and, ultimately, sustain development in Nigeria.

Chiwunma Anago listens intently and takes careful notes as the instructor at the front of the classroom moves a solar panel into different positions. The teacher is describing how the orientation of the panel can have a dramatic impact on the amount of electricity it can generate and how the proper positioning depends on where on the globe the panel is installed. To illustrate why this matters, the instructor eventually points out the window towards the roof of a home where a few panels are haphazardly installed and shakes his head. “Those will not work so well,” he says.

These are mistakes that Anago is eager to avoid. Anago is one of about 20 students packed into a classroom at the headquarters for the Nigerian Institute of Architects in the capital city of Abuja. Anago and her fellow classmates are all members of the Female Architects of Nigeria, who are participating in a three-day course aimed at providing basic instruction on how to properly incorporate renewable energy (RE) and energy efficiency (EE) into building design.

For Anago, the information is far from abstract. Together with her husband, she is in the early stages of launching an architecture firm that focuses on green building design. “I know that all of this will help, and it is nice to know the science behind it,” she says. “Demand is high [for renewable energy] because it’s difficult to get electricity in Nigeria and it should not be a luxury.”

Different students in the class have their own unique motivations for understanding how renewable energy, particularly solar, can improve both their building designs as well as the lives of the people who occupy their creations. One woman, Irene Mnguyto, is keen to take what she learns and incorporate it into the curriculum at Benue State University, where she’s a teacher; another, Zulai Baba-Givei, sees real value in spreading lessons about RE/EE throughout the construction sector from her position at the Nigerian Building and Road Research Institute.

This three-day training at the Nigerian Institute of Architects (NIA) is just one example of a concerted effort to professionalize the country’s renewable energy sector. It matters. Even as renewable energy becomes more affordable – and becomes a ready-source of electricity

for the millions of Nigerians who may never be served by the central grid – little progress will be made without a properly trained workforce. “A lot of renewable projects are going in, but they are not succeeding,” says Oregbesan Olalekan, Assistant Director of the National Power Training Institute of Nigeria (NAPTIN). “If we could have institutions that are well-informed, that are up to date about the knowledge and the right way to install, then the quality of the work will be much better.”

NAPTIN and NIA are two of 12 Nigerian training institutions and universities that have benefitted from the Renewable Energy and Energy Efficiency Project (REEEP), funded by USAID and Power Africa, and the project’s collaboration with GIZ’s Nigeria Energy Support Program (NESP), funded by the EU and the German government. These two projects partnered together to bolster the training available to Nigeria’s RE industry. “Before we came there was no capacity building for renewable energy available in Nigeria,” says Javier Betancourt, REEEP’s Chief of Party. “Nobody had a training course on how to do installations or how to do design. You need a workforce to be able to do these systems.”

Today, the training institutions [offer certifications for everything](#) from solar PV installers and PV installer supervisors to mini grid designers to small hydro engineers. To ensure a high level of training, REEEP and NESP brought in renewable energy experts from around the world to assist with the curriculum development, its implementation, and training of Nigerian teachers. “We benefitted from having a much broader variety of trainers to introduce these topics because we could pull from different networks in Europe, the USA, and Asia,” says Ina Hommers, who leads NESP.



Offering high-quality instruction and certification can also be helpful in securing affordable financing for renewable energy projects; when financial institutions know they are working with credible developers and installers, it reduces their risk. “We try to convince banks to give better loan conditions if someone can prove that they use a certified installer because the likelihood that this installation will be done at a certain quality level is much higher,” says Hommers.

REEEP’s Technical Specialist Samuel Ahanor conducts RE/EE training to NAPTIN members.

Offering world-class training is only part of the challenge. NAPTIN’s Olalekan says that the interest in renewable energy careers is limitless. But few people are in a position to take advantage of the courses because of their personal financial situation. REEEP has helped finance scholarships for some students. But a longer-term, more sustainable answer comes from working more closely with the renewable energy companies that will end up hiring those who earn certificates. Olalekan wants to make some sort of paid internship a part of the training because it would both make the courses more economically viable for students and deliver practical skills that can’t be learned in the classroom.

Already, these bonds are beginning to be forged. “One of the biggest challenges for the sustainability of these projects is the right skill sets needed to design projects or manage projects,” says Anayo Okenwa Nas, the CEO of Nayo Tropical Technology Ltd., a Nigerian solar and minigrid developer that has worked closely with REEEP. “We sent two staff for this training, and it was a very high level training. They came back and also trained other staff in the company.”