Florida microgrids ethiopia

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The Ethiopia Distributed Renewable Energy and Agriculture Modalities (DREAM) program has been awarded $8 million from the African Development Bank’s Sustainable Energy Fund for Africa (SEFA).

The funds, which will be provided in the form of concessional loans, grants and risk mitigation, will be used to finance up to 50% of the capital expenditures associated with DREAM’s solar minigrid pilot program.

Minigrids, sometimes referred to as remote microgrids, are typically used in remote areas that do not have access to a central grid. Minigrid systems use software to control distributed energy resources like solar panels and battery storage, providing remote communities with reliable, clean and affordable power.

During the pilot, DREAM will deploy solar minigrids to power agricultural irrigation systems and local communities in Ethiopia. The program aims to deliver the largest minigrid-powered irrigation system in Africa.

“Water, energy and food are critical for our sustainable well-being,” said Habtamu Itefa Geleta, Ethiopia’s Minister of Water and Energy. “The Ethiopian government is approaching the twin challenges of agricultural productivity and energy access with an integrated approach. We are glad to partner with the African Development Bank, through SEFA, and other project stakeholders on this innovative DREAM pilot.”

The DREAM program is a collaboration between several ministries within the Ethiopian government, including the Ministry of Water and Energy and the Global Energy Alliance for People and Planet (GEAPP), a collective that works to expand vulnerable communities’ access to green energy that is affordable and reliable. GEAPP is co-financing the DREAM pilot.

“GEAPP was created to address two of the defining challenges of our time – ending energy poverty and tackling the climate crisis through a just transition to renewable energy – and DREAM is a great example,” said Joseph Ng"ang"a, GEAPP’s interim CEO. “DREAM communities won’t just get electrification but will also get reliable power for irrigation and clean drinking water. The program will also enable the local economy to create enormous value and accelerate rural development for close to 300,000 people.”

Ethiopia is home to one of the fastest growing economies in Africa, according to the International Monetary Fund. The country’s gross domestic product is expected to grow by 6.2% in 2024, driven largely by the agricultural sector.

“The DREAM project provides an innovative approach to addressing the water-energy-food nexus in

Ethiopia,” said Daniel Schroth, director for renewable energy and energy efficiency at the African Development Bank.

Most recently, the government announced it is electrifying 15 universities and teaching hospitals with hybrid solar minigrids. The systems, which will have a combined capacity of 35.5 MW, will serve 350,000 students and cost $550 million.

The University of Maiduguri and its teaching hospital were among the institutions selected, and it’s expected that the system will be commissioned later this summer. The 12-MW solar minigrid will power the entire university, as well as a nearby water treatment plant, and is reportedly among the biggest minigrids in the country.

One of the largest minigrid markets in the world, there are over 100 minigrids in operation across Nigeria and more are on the way. Late last year, the Nigerian Rural Electrification Agency commissioned a new control center in the Nigerian capital that’s capable of hosting data from all the minigrids in the country.