

REGIONAL MARITIME UNIVERSITY

An international university in Ghana provides a bright future



Owned by the Republics of Cameroon, The Gambia, Ghana, Liberia, and Sierra Leone, the Regional Maritime University (RMU) is an international tertiary institution in Accra, Ghana. John Agyekum Kuffour, former President of the Republic of Ghana, launched it as a full university in October 2007. The overall objective for its establishment was to promote regional cooperation in the maritime industry focusing on training to ensure the sustained growth and development of this industry.

Quality education is paramount for the development of more than just individual industries, contributing to economic growth and even citizen health statistics throughout a country. As an institution of higher learning, RMU is investing in the future of Ghana by imparting knowledge and training to Ghana's youth. In particular with the implementation of REDAVIA's solar farm, RMU is taking advantage of the partnership to educate its students about the importance and potential of renewable energy.

CHALLENGE

The price of quality education

RMU's campus in Accra has a peak load of 450 kVA; a laboratory complex, a welding and fabrication center, simulation rooms, air conditioning, and lighting loads make up the major load components. The major electricity consumption is during weekdays while consumption reduces to 25% over weekends. To supply this load, RMU uses a main electricity grid connection with special load tariff SLT-LV and additionally keeps a backup diesel generator set with a rated capacity of 550 kVA.

Objectives

- Electricity cost reduction
- CO₂ savings
- Technology showcase

Constraints

- No capital expenditure

With this considerable electricity demand, RMU's utility bill was taking up a significant portion of the university's operating budget. In order to reduce electricity costs, RMU sought a cost-saving solution that would allow them to invest the money saved on electricity into other aspects of the university, such as expanded curriculum and training in order to provide the best possible university setting for students at an affordable cost.

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SOLUTION

Illuminating minds with solar power

REDAVIA's cost-effective leasing business model made it possible for RMU to turn their solar ambitions into reality, despite the university's tight budgetary constraints. In November of 2017, REDAVIA implemented an 86 kWp plant on the university campus. RMU immediately saw significant monthly savings through this introduction of REDAVIA's clean, reliable energy.

Following the successful first phase of the project, REDAVIA deployed an additional 181 kWp in April of 2018, quickly followed by still further 168 kWp in October of 2018, bringing the total RMU solar farm to 435 kWp. In addition to cost-savings, REDAVIA offers RMU operational convenience by providing regular maintenance and 24/7 technical monitoring to ensure the solar farm runs smoothly.

24/7
*technical
monitoring*



BENEFIT

Solar energy makes the grade

From deployment through March 2019, the REDAVIA solar farm at RMU has generated more than 450 MWh and a CO₂ reduction of 197 tonnes. Over the lease term of the plant, it is projected to generate more than 7200 MWh while reducing CO₂ emissions by an estimated 3098 tonnes. As a stated goal of the Ghanaian government, carbon reduction is a milestone achievement for the university.

Through REDAVIA's solar solution, RMU accomplished its primary objective: Significant savings on electricity. Additionally REDAVIA's lease-to-own contract will transfer ownership of the solar farm asset to RMU after 12 years. RMU is taking the opportunity to reinvest the savings from reduced electricity costs in an expanded curriculum and training, using the solar farm as a technology showcase. REDAVIA is working with RMU to introduce and establish the REDAVIA Solar Lab, which will support RMU's newly accredited 'Renewable Energy Engineering' curriculum, enabling the university to complement its Master of Science degree with hands-on, practical training. The Solar Lab aims to educate and prepare students for engineering jobs in the renewable sector, ensuring ongoing, sustainable development in Ghana and the four other Member States of RMU.

Professor Elvis Nyarko, Vice Chancellor at RMU, stated, "Our partnership with REDAVIA has been strong and fruitful so far, and we are looking forward to jointly taking the next steps."