

Mozambique energy storage for grid stability

Globeleq, a leading independent power company in Africa, and its project partners, Source Energia, an energy developer focused on Lusophone Africa, and Electricidade de Moçambique (EDM), the Mozambican national power utility, has now received formal notification from EDM (the off-taker) that commercial operations at the 19 MWp Cuamba solar PV and 7 MWh energy storage plant began on 12 September 2023.

On 14 September 2020, Filipe Nyusi, President of the Republic of Mozambique, Carlos Zacarias, the Minister of Mineral Resources and Energy, and other distinguished guests officially inaugurated the Cuamba Solar plant, which is Mozambique's very first combined utility scale solar and energy storage plant.

The US\$36 million Cuamba Solar plant is also Globeleq's first greenfield project in Mozambique and the Group's first combined solar and storage plant in its operating portfolio. It supplies clean energy to EDM through a 25-year power purchase agreement and provides power for around 22 000 Mozambican families, displacing over 172 000 t of carbon dioxide over the life of the project. The existing Cuamba substation was also upgraded ensuring the smooth integration of variable solar energy into the grid.

Financing for the Cuamba project was provided by The Emerging Africa Infra-structure Fund, a member of the Private Infrastructure Development Group (PIDG) with US\$19 million in debt funding. PIDG's Viability Gap Funding grant facility provided US\$7 million to support an affordable tariff, fund essential grid upgrades, and an energy storage system for EDM. BII Plus, the technical assistance facility of British International Investment, contributed a US\$1 million grant towards the battery energy storage system.

Zacarias added: "The Cuamba solar power plant project aims to increase energy availability in the country through both public and private investments, with growing contribution from renewable energy sources; and addresses a strategic objective outlined in the Government's Five-Year Programme. In doing so, we are creating the essential conditions for industrialisation, job creation, and an energy transition."

Mike Scholey, Globeleq's CEO, remarked: "We are extremely excited to now have Cuamba Solar officially delivering clean power to the Mozambican grid via EDM and supporting both the local economy and the Government's efforts to build more renewable power. We continue to build our business in Mozambique through this project, our purchase of the Mocuba solar PV plant and our Temane gas-to-power project, currently in construction."

Pedro Coutinho, CEO of Source Energia, commented: "We are very pleased to make another contribution to the Mozambique Energy sector and look forward to supporting the future growth of the industry in the country. Our thanks go to our project partners and funders for their unparalleled patience and

commitment during the development and construction phase.”

EDM’s Chairman, Marcelino Gildo Alberto, concluded: “This project represents a demonstration of the company’s effort in the search for sustainable solutions to accelerate access to energy for Mozambicans in a sustainable and accessible way. In compliance with the Government’s Five-Year Plan, which provides for the introduction of 200 MW in renewable energies, EDM is at the forefront of the energy transition in line with the Paris agreements to reduce global warming.”

The Autumn 2023 issue of Energy Global hosts an array of technical articles focusing on green hydrogen, wind installation technology, blade monitoring solutions, and more. This issue also features a regional report looking at some key renewables projects in Australia.

Mozambique is at a crucial point in its energy trajectory, with a wealth of resources including hydro, solar, wind, coal and natural gas. Notable initiatives include the Mphanda Nkuwa hydroelectric project and the Cahora Bassa dam, both recognised as potential sources of economic electricity not only for Mozambique, but also for the region.

The Mozambican government is embarking on more adaptive policies and market-orientated reforms aimed at addressing performance challenges and fostering the overall development of the energy sector. In line with trends in several sub-Saharan African nations, the restructuring of Mozambique’s energy sector remains an ongoing process, characterised by a significant state presence.

The country’s electricity generation potential, relative to many southern African nations, positions it as a potential regional energy hub, offering attractive opportunities for investment, thus catalysing socio-economic advances.

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