

Floating solution to drought and energy challenges



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A fruit farm and wedding venue outside Franschhoek is home to South Africa's first floating solar PV installation, and the first commercially scaled one on the continent.

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Able to produce up to 60 kilowatts of energy, it is also the largest floating solar panel system to be installed in Africa.

The system was installed by New Southern Energy, and the first phase - which also includes a land-based solar installation - will allow Marlenique farm to run 90% of its energy-intensive cold storage, irrigation and venue facilities off the traditional grid. The second phase, which involves the installation of battery packs, will take the farm entirely off the grid.

Not only does the floating solar panel provide the much-needed energy that this farm needs, it also reduces evaporation from the dam; thereby saving water. "This will reduce the farm's carbon footprint by half," says Carl van der Merwe, financial director of Boplaas 1743, the owners of Marlenique. "Having a state-of-the-art solar system has guaranteed them fixed energy costs for the next 25-plus years. It was a better decision than planting a vineyard."

Solar installations on water are particularly useful in instances where there is a shortage of suitable land for conventional installations, or where land would be better used for agriculture.

"Floating solar farms could very well be the future of energy harnessing by reducing evaporation of the Earth's water supply by providing shade over these areas and powering many homes in the process. It is a big investment but the return will be greater," says New Southern Energy on its website.

Jack Setton, of Ciel & Terre, responsible for the development of the system, says South Africa is a forerunner on the continent for its innovative use of solar power. "Upgrading a reservoir with floating PV saves space, limits evaporation and allows on-site energy generation, which makes floating solar a perfect solution to the region's high land usage, water stress and unstable electrical supply."