



WALMER ENERGY

Cost of Grid-Connected Solar Containers for African Farms





Overview

How much does a solar PV mini-grid cost in Africa?

Stand-alone solar PV mini-grids or solar PV-hybrid mini-grids have installed costs in Africa ranging from USD 1.9 to USD 5.9/W for systems greater than 200 kW. Solar PV mini-grids that came online in 2012 or earlier have higher costs.

How much does solar PV cost in Africa?

On-grid commissioned and planned utility-scale solar PV projects between 2014 and 2018 in Africa range from around USD 1.2 to USD 4.9/W (USD 1 200 to 4 900/kW). Although Africa is currently home to a very small set of utility-scale solar PV projects, costs have been declining over time.

Where are solar panels installed in Africa?

Most of the grid-connected residential solar PV systems in Africa are installed either in North African countries or in South Africa. Tunisia and South Africa in particular have established markets, while Morocco has successfully used solar PV to electrify villages. These markets have competitive costs compared to OECD countries.

Is a competitive cost structure for solar PV achievable in Africa?

Project developers are now targeting sub-USD 2/W cost ranges in East and West Africa. This suggests that with the right regulatory framework and access to finance, competitive cost structures for utility-scale solar PV are achievable throughout Africa.



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