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## Finance Solutions For PV Systems

Demand and technological advances have, amongst others, attributed to the significant decrease in Solar Photovoltaic (PV) systems costs over the years. Factors such as increased property value, municipal incentives, tax benefits and reduced exposure to energy price hikes have boosted demand for PV systems. However, one of the major barriers homeowners and businesses encounter in the acquisition of a PV system is the high up-front cost of procurement and installation.

Costs to be considered include the design of the solar PV system, costs of installation, location, roof type, technology procured and professional engineering sign off on the system.

Self-funding where the client purchases 100% of the system using available funds is a good option. However, it is not conceivable for some looking to procure a solar PV system. That is where solar power finance options come in.

Solar power finance entails making use of innovative financial mechanisms and incentives that have the potential to unlock substantial demand for energy services in South Africa. 'It's essentially an opportunity, in and of itself, but it is also a driver of opportunities in the energy sector,' explains Energy Analyst, Reshmi Muringathuparambil of Green Cape, a SAPVIA member and leading non-profit organisation focused on the development of the green economy.

Debt financing from commercial banks, Online impact investing platforms and the Power Purchase Agreement (PPA) are other options available to consumers.

*SAPVIA examines these options in detail:*

### **COMMERCIAL BANK-FUNDED**

Commercial banks and SAPVIA members such as Absa and Nedbank provide term loans covering 70-100 percent of the capital costs within a five to ten-year loan terms. Security is individual and project-specific and interest rate risk dependent. All tax benefits and incentives apply.

## **POWER PURCHASE AGREEMENTS**

Power Purchase Agreement is an innovative model that the EPCs or developers offer enabling South Africans to diversify their energy sources, without the upfront costs generally associated with switching to solar.

The PPA provider owns the system and therefore lays out the capital to install the solar PV system.

'They are long-term contracts between developers and PV system buyers, for the buyer to purchase electricity at a predetermined rate, with zero upfront costs,' explains Muringathuparambil. These are long-term agreements of usually 15 years and have "buy-out" clauses within the PPA. 'They are a hedge against future electricity costs and protect customers against uncertain electricity hikes,' adds Muringathuparambil.

## **ONLINE IMPACT INVESTING PLATFORMS**

Local crowdfunding platforms such as The Sun Exchange and FedGroup Ventures, allow for individuals to buy solar PV panels or cells, which are then rented to businesses at no upfront cost. 'The owners of the panels/cells receive a rental or income for the lifetime of the panels/cells and businesses usually immediately start to save on their energy bill,' explains Muringathuparambil 'Some platforms offer free insurance and maintenance,' she adds.

On average, a residential or small business property might require a 3-5kWp solar PV system. For these systems, a price tag of approximately R90 000 (~R22/Wp) can be expected.

One needs to have a solar PV Engineering, Procurement & Construction (EPC) company to do due diligence on the facility to ensure the financial viability of solar PV and whether the home or business facility is the right candidate.

SAPVIA has an accredited list of financiers and solar PV installers with PV GreenCards. The installers can be contacted for assessments and quotes.

*Find a list on <https://www.sapvia.co.za/members-service-directory/>  
GreenCape's green finance industry briefs available here*