

# Solving South Africa's Interrupted Power Supply Problem with SolarEdge/Victron Integration

## The Challenge

Rotational load shedding has become a way of life in South Africa since December 2014. Scheduled periodic blackouts, intended to relieve some of the pressure on the country's aging electric utility infrastructure, are having a devastating impact on the economy.

The good news is that South Africa is awash in free sunshine. This is leading homeowners to check out sustainable solutions that can minimise their reliance on their utility grid.

Rinus van der Sluys, a homeowner from Paarl in the Western Cape Province, was particularly interested in finding a solution to resolve energy instability.

## The Solution

Dorman Projects, a leading SolarEdge installer in Cape Town, determined that installing a residential solar energy rooftop system together with energy storage would be the ideal solution for Rinus. With the customer's goal of becoming less reliant on the grid, Dorman proposed a fully integrated 11kWp rooftop solution with one SolarEdge SE17K inverter, three Victron inverters and SolarEdge P730 power optimisers.

The SolarEdge solution integrated with the Victron Energy inverter and chargers range provided the homeowner with nonstop power supply. In the event of power outage during the daytime, the solar system supplements the battery draw, allowing the batteries to last longer.

**“We are very satisfied with the system. This integration is a viable solution for many South Africans that experience interrupted power supply,”** said Errol Dorman, CEO, Dorman Projects. **“This is a very smart system and we are currently offering this solution as one of our premium products.”**

**“The excellent support we are getting from the SolarEdge South African team makes working with the SolarEdge product joyful,”** said Errol Dorman, CEO, Dorman.



### Installation at a Glance

- System Type: Residential rooftop
- Location: Paarl, Western Cape, South Africa
- Power Optimisers: 15 x P730
- Inverters: 1 x SolarEdge SE17K, 3 x Victron Quattro 48/8000/110-2
- Battery: 22.2 kWh Solar MD
- Solar Modules: 30 x 365W Canadian Solar KUMAX
- Energy Meters: 1 x WND-3Y-400-MB SolarEdge meter

**“With our SolarEdge clean energy system, the disruptive rolling blackouts that have become so prevalent in South Africa are no longer a problem. We are happy with the system's reliability and appreciate the visibility we have to our own energy consumption using the remote monitoring platform,”** said Rinus van der Sluys, Homeowner, Paarl, South Africa.

**“We strongly recommend any homeowners that are facing uncertain, interrupted power from their local utility grid to check out the advantages of free, clean solar power with a SolarEdge system,”** said Rinus van der Sluys, Homeowner, Paarl, South Africa.

## Made in the Shade

Due to the amount of cloudy days residents of the Western Cape endure, maximising PV power is critical. Shading factors such as clouds and winter months with limited sunshine may curb the solar energy production generated by traditional PV systems. However, SolarEdge power optimisers are able to mitigate power losses caused by shade or other factors by harvesting the maximum power possible from each module. This ultimately results in the entire SolarEdge system producing solar energy to its maximum potential, rather than being dragged down by the performance of its weakest modules as in traditional systems.

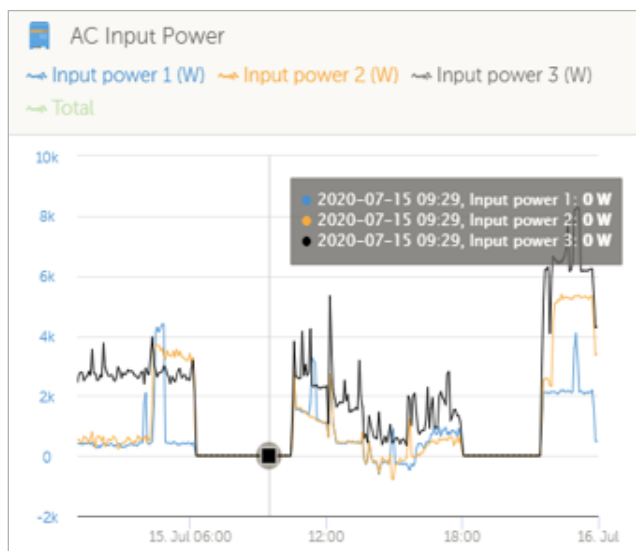
## Added Peace of Mind for Homeowners and Installers

SolarEdge offers enhanced safety with two embedded features: SafeDC™ and arc fault detection. In case of emergency or during maintenance, when the inverter or grid are down, the DC voltage is automatically reduced to touch-safe levels, protecting residents, maintenance personnel, and firefighters. The SolarEdge inverter is also designed to detect heat-generating electric arcs, further reducing fire and electrocution risks.

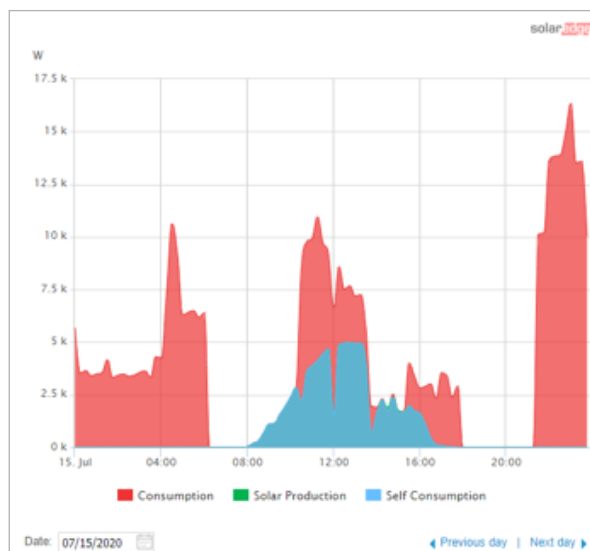
## Stay on Top of System's Performance

SolarEdge's free for-25-years monitoring platform lets installers and system owners track system performance at all times from their PC or mobile device. Using intuitive charts and reports, homeowners can track PV production/consumption as well as financial performance of the system, and O&M personnel can easily spot system issues for quicker maintenance either remotely or onsite.

Utility Supply:



SolarEdge Energy Supply:



## About SolarEdge

SolarEdge is a global leader in smart energy, delivering innovative commercial and residential solutions that power our lives and drive future progress. Leveraging world-class engineering and worldwide experience, SolarEdge developed a groundbreaking intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. As a result of this and other innovations, today SolarEdge is the world's #1 solar inverter company in revenue with millions of systems installed in 133 countries. SolarEdge addresses a broad range of smart energy market segments through its PV, storage, EV charging, battery, UPS, and grid service solutions.

[www.solaredge.com](http://www.solaredge.com)