

## Project Name: South Africa Residence



**Company:** Elmorex Solar Solutions  
**Location:** South Africa  
**Project Date:** February, 2021  
**Main Contact:** Werner Roux  
 Installation Manager  
**Application:** Residential  
**Customer Type:** End User  
**Phocos Product:** Any-Grid PSW-H Hybrid Inverter  
**Quantity:** 2 Units

## Conditions/Challenges Before Installation

South Africa has a very unreliable utility grid which often results in extended periods with no power supply. Before the power system was installed, this homeowner often experienced 4+ hours per day with no electricity. He noted reliable power access was less of a problem before COVID-19 because the children were attending traditional school and the adults were working from a commercial office equipped with a backup power supply. As this household, like many others in the past year, transitioned to working from home and virtual schooling, their unreliable utility power became a significant problem. Power interruptions were affecting the entire family's productivity every day to get their work and learning completed. In addition, it was simply becoming increasingly inconvenient to do the usual things such as making dinner. They were luckily equipped with a gas supply for cooking food but would have to use emergency lighting to be able to see what they were preparing. Often this required a lot of inconvenient management of rechargeable batteries or going through costly disposable batteries often.

## Solution/ Results After Installation

This home is now equipped with 2 x Phocos 5kW Any-Grid Hybrid Inverters, a 5.8kW solar array (8 panels per PSW-H inverter), with 10.2kW lithium battery storage capacity. The newly installed system is still connected to the municipal utility grid but so far, they have not needed any utility power and the customer is happy to not have a bill each month. They like the freedom to still get access to the utility if there is ever an extended number of days without sun, but that will not be common. The family is experiencing energy independence with sustainable options and have no further power interruptions after this investment. They are happy with the discreet appearance and small footprint of the PSW-H.

The anxiety of not knowing if power will be available at any given moment is now lifted, making a much easier work and study from home experience. On a sunny day, all of this family's power demands are met by the solar panel production. In the evenings, the system automatically switches over to battery power based on their programmed settings of the PSW-H, so the homeowner has nothing to manage. This family can function normally without frustrating power interruptions, so there is improved productivity, along with improved grades for the children. They are living the life they want to live.

*"Why would you not use solar power with Phocos? This is Africa, there is ALWAYS sun!"*

— Residential Homeowner in South Africa

## 30 Hours/Week Without Power, Now Avoided

Results offer:

- **School:** Better grades due to consistent virtual learning and reliable evening study time.
- **Work:** More productivity during business hours and less frustration to accomplish daily tasks and projects. More time for family activities.

Featured Product:



Any-Grid PSW-H-5kW-230/48V