

Project Name: **Shisamanzi – South Africa**

<b>Company:</b>	Shisamanzi
<b>Location:</b>	South Africa
<b>Project Date:</b>	2022 (original) & 2023 (expansion)
<b>Main Contact:</b>	Richard Theron (Installer)
<b>Application:</b>	Agricultural
<b>Customer Type:</b>	Commercial
<b>Phocos Product:</b>	<b>PSW-H Hybrid Inverter</b>
<b>Quantity:</b>	3 units

## Conditions/ Challenges Before Installation

A farmer in Southern Africa was becoming increasingly frustrated with the energy instability coming from the local utility. Farming with high tunnel greenhouses optimizes growing conditions to ensure a high yield. These ‘tunnels’ allow equipment to create controlled temperature and humidity for crops, such as rare ginger, to survive and thrive. The utility downtime would sometimes last 6 hours a day, killing vital crops, in turn eroding profits. Downtime would also impact electrical appliances and lights at home, creating frustration for the family. High yielding crops are essential for this farmer’s livelihood and with one problem after another, incurred by daily power interruptions and rising utility bills, they were fed up and ready for change. As far as the farmer’s water supply, he was faced with replacing the bore hole pumps currently in use, which would be expensive and out of budget. The farmer reached out to an experienced solar installation company called **Shisamanzi**, for an economic solution. Shisamanzi’s team took on the challenge, as their company’s goal is to help improve lives with renewable energy solutions. They were faced with a 100-year-old farm with unique branches and factored in equipment purchased at different times with different electrical requirements, to make a solution that worked. From balancing 3 phases between 3 different loads, working with bore hole pumps requiring six times the Amps at initial startup vs runtime, to managing devices that control temperature and humidity for the crops, and ensuring functioning domestic appliances in the home, it took a knowledgeable team to conduct proper testing and design an energy solution that fit this intricate project.

## Solution/ Results After Installation

Phocos products offered the perfect fit for this complex design. Discovering it would be less expensive to buy 3 **Phocos 8kw Any-Grid Hybrid Inverters** than replacing the 3-phase borehole pumps, was just one of the reasons the farmer was excited to purchase this new solar energy solution. Beyond that, this installer conveyed confidence in the Phocos brand and excellent service they have been provided in the past. When designing this solution, Shisamanzi not only solved the current electricity challenges of this home and business, they offered an option to take both completely off-grid, providing 100% energy independence. This ensured the customer not only protected their business from price increases from the utility company, they lowered operational costs by eliminating the monthly electric bills. This passionate, solar installer was able to alleviate the customers’ frustration and business concerns by choosing Phocos and ending daily loadshedding challenges.

***"I am passionate about installing Phocos inverters to make a difference in people's lives."***

— Richard Theron, Installer/Shisamanzi

**Gained  
100%  
Energy Independence**

**Featured Product:**



**Any-Grid PSW-H:  
Hybrid Inverter**