

Project Name: Residential Rental & Small Poultry Business Project- Zimbabwe



Company: Installed by Sunchoice Energy
Powered by Samansco

Location: Zimbabwe

Project Date: June, 2022

Main Contact: Milton Chitombo
Technical Director

Application: Residential and poultry business

Customer Type: End user residence and business

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

Quantity: Phase 1: 1 Unit

Project Description/ Key Details

This Zimbabwe family was faced with a few challenges due to constant utility downtime. Primarily, they wanted reliable power to help maintain freshness for their poultry business, and they had a goal for their kids to improve in school. This means more study time with reliable, safe lighting and consistent access to digital resources. So, while searching energy independence options, they had the added challenge of not owning their home. Renters, typically have an obvious barrier to invest in an energy solution, since equipment is typically mounted on/in a home.

The customer needed a quality solution that can move as they move and be compatible with the utility. Not an easy task. This is where **Sunchoice Energy** found an opportunity to service this customer and over 60 other customers (including both rural and urban environments) who are renting a home and suffer from common utility power outages creating frustrating challenges for daily living. This specific customer moves to different locations often for their small poultry business, so rental homes are their way of life. This installer listened and developed a solution that is the perfect fit for their needs.

Solution/ Results

Energy storage was the focus, so the design evolved around the public utility powering batteries when utility power is working. For energy storage a 48V, 100Ah lithium battery (LiFePO4) was selected as the best option. The energy stored in the battery bank powers all critical loads in their rental home, and for their poultry business, when utility power goes down. The Phocos Any-Grid PSW-H, Hybrid Inverter works with lithium battery chemistry and makes it easy to prioritize energy sources to facilitate this design. **Sunchoice Energy** fabricated a mobile structure to hold this equipment. Everything is wired on the structure and is working today, but will be easy to move, when the time comes.

The client has been enjoying the benefits of their turnkey investment since the solar installer left their home. Critical loads are now working, even when the public utility is not. The children are able to study at night without issue, which has created an improvement in their grades. There is no fire hazard risk today, because candles are not needed at night for light. Their freezer can run without interruption to make sure the poultry meat they sell lasts longer, which helps them increase profits. Before, power outages could mean all of their poultry was at risk of spoiling, ruining their hard work, eroding profits, and creating unnecessary food waste. Lastly, this family also received the added benefit of better communication with loved ones, because they can charge their phones at will. The best news is, when it is time to move, their investment and this new energy independent lifestyle moves with them.

"We recommend the Phocos Any-Grid PSW-H to clients because it is a reliable hybrid inverter and offers beneficial features that save electricity.

— Mr. Milton Chitombo, Technical Director

6-year ROI

Solution offers a great opportunity for a renter to make an investment in their energy independence, without the burden of having home ownership.

Featured Product:



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