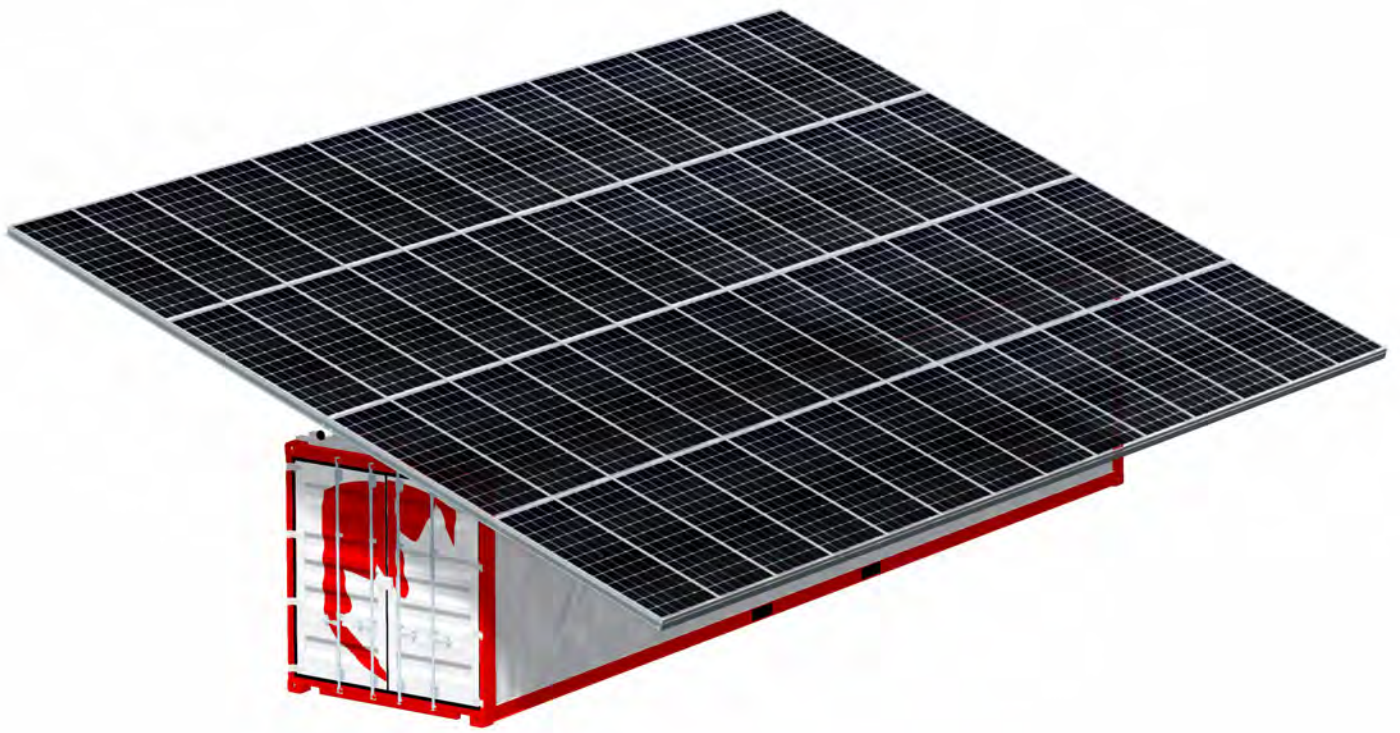
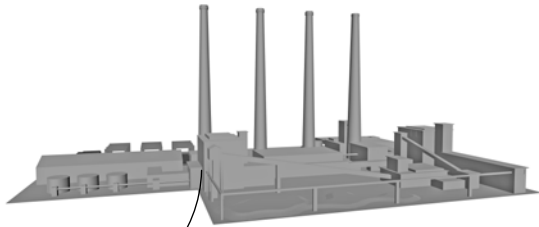


# GRID GUARD<sup>TM</sup>

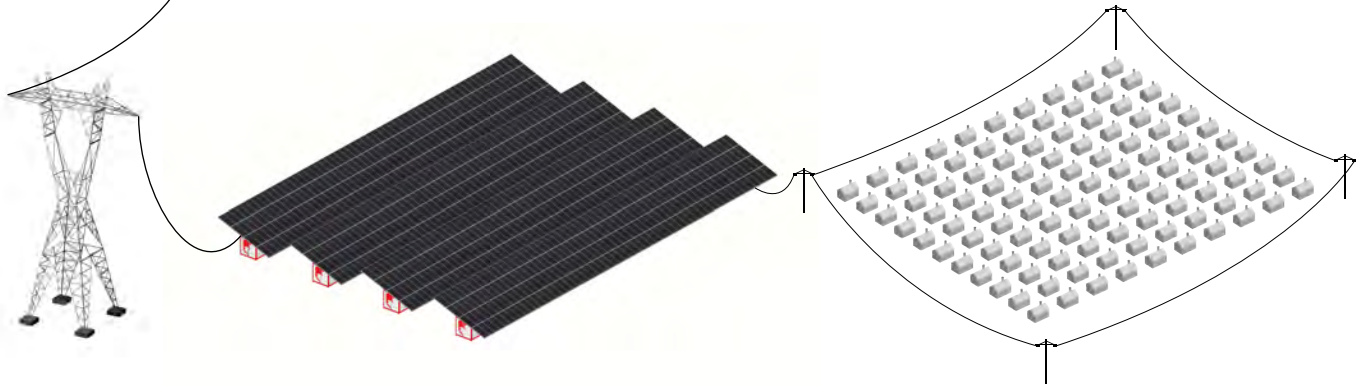
DEPLOYABLE POWER SOLUTIONS





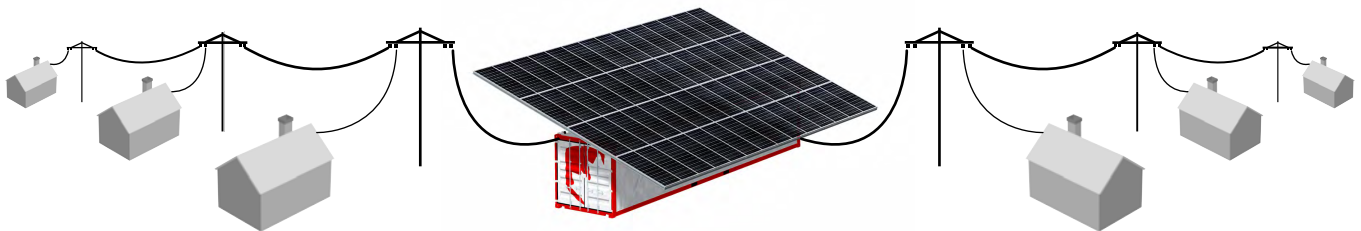
## GRID GUARD<sup>TM</sup>

Power grid stability is critical. Grid-Guard is designed to strengthen and stabilize power grids with stored power released when needed. Grid-Guard supports the power distribution system with on-demand power capacity and intelligent systems that monitor demand and deliver power when loads peak. By providing extra capacity and flexibility, Grid-Guard provides an attractive return on investment.



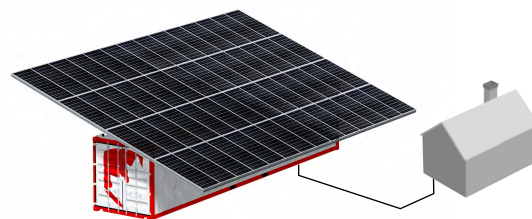
## MINI-GRID

Rapid deployment and simple setup make Mini-Grid power the easy way to establish a new power grid. The ultimate solution to providing power for Villages, Communities, Industries, Multiple businesses or anywhere power production and distribution is needed. Mini-Grid Systems manage power distribution and track usage making billing customers effortless. Become your own utility and realize rapid returns while benefiting your customers. Professional monitoring, maintenance and support services available.



## OFF-GRID

Turn-key Off-Grid systems deliver affordable power solutions for Off-Grid living, remote industries, irrigation systems, communication towers, construction projects, and businesses that require energy independence. Our Off-Grid systems allow you to be your own power producer with little maintenance and low upkeep costs.



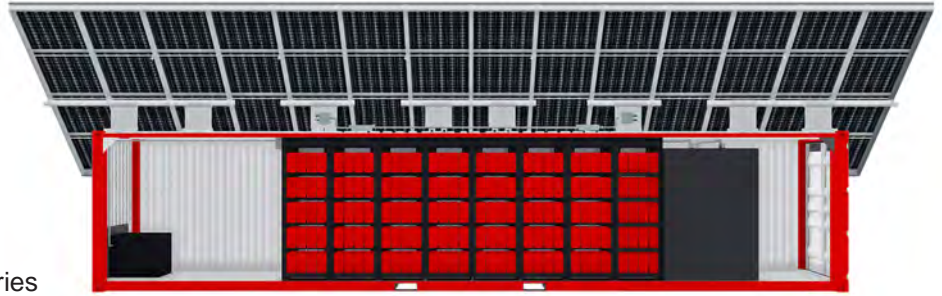
## 430 KILOWATTS

Usable Battery Power

## 4500 CYCLES

@50% Depth of discharge

Matrix Carbon AGM Deep Cycle Batteries



Sealed lead-acid carbon batteries are a break-through in energy storage technology. Carbon batteries provide 3 to 4 times longer life cycles and the ability to handle extreme temperatures better. With proper sizing, carbon batteries can have a life cycle of up to 30 years.



Bifacial Solar Technology

### 20.7 kWp

(Based on 40 foot models)

- 56 Solar Panels

- 370 Watt Bifacial technology

Integrated Bifacial Solar Array

10-30% more power with Bifacial Technology

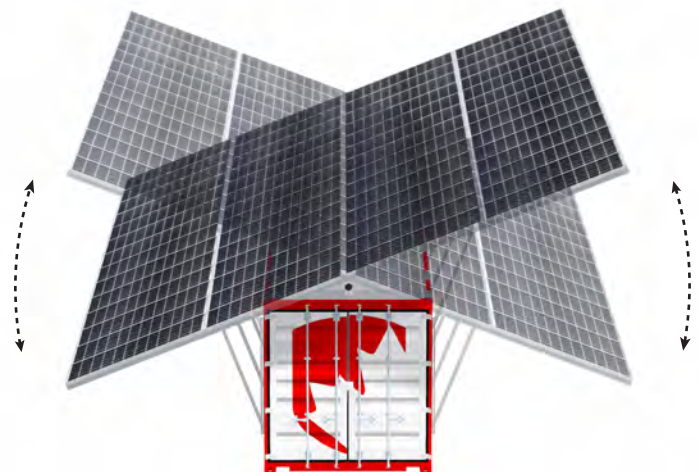
### 119kWh/day

Average daily solar production with 5 hrs of peak sun and 15% power production from Bifacial Technology.

ADJUSTABLE ANGLE MOUNT

## 90° OF ROTATION

Seasonally Adjustable for optimal energy production  
Up to **20%** more production compared to fixed angle mounted systems

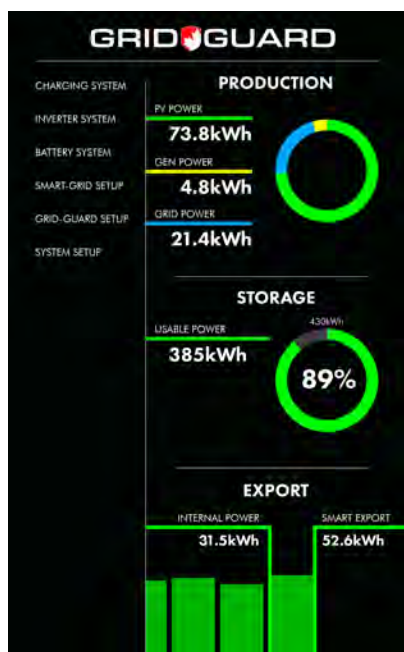


## MPPT Charge Controllers

20 Kilowatt MPPT charge controllers  
98% efficient  
Data logging

## Hybrid Inverter

30 to 200 Kilowatt Hybrid Inverters available  
Supports Grid-Tie, Mini-Grid and Off-Grid



## EMCS

The Energy Monitoring Control System (EMCS) governs all GRID-GUARD products.

Large touch display interface for ease of use.

Preprogrammed settings allow for quick setup and simple operation.

View manuals and video maintenance tutorials all from the EMCS touch screen interface.

## Auxiliary Generator

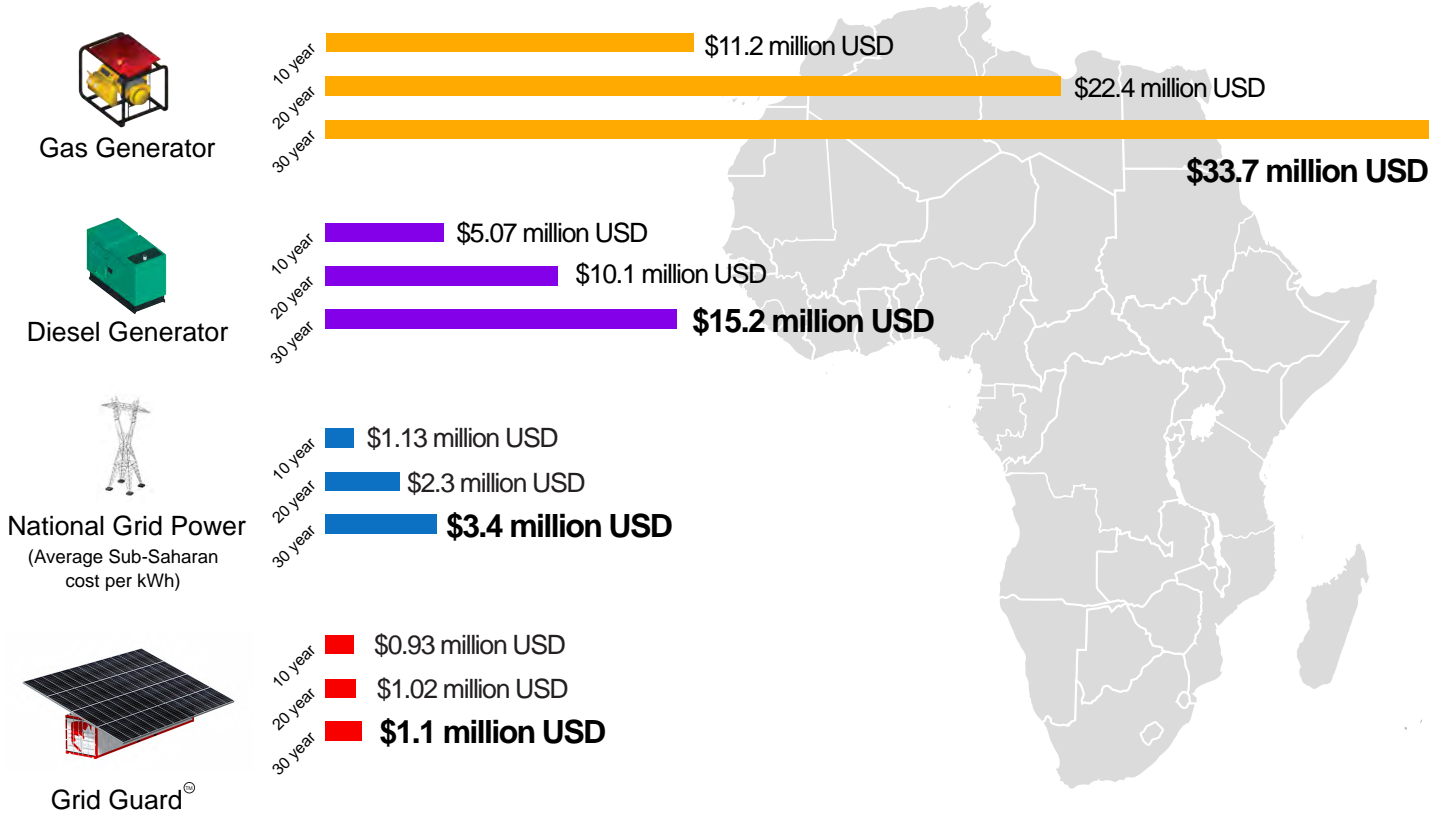
When the power-grid requires 100% uptime, the backup generator is programmed to turn on when it's needed. We offer 20kW to 100kW diesel / propane / gas generators installed



# COST COMPARISON

## TOTAL COST OVER 30 YEARS

Based on estimated cost per kilowatt in Sub-Saharan Africa based on fuel and maintenance



## TOTAL COST OVER 30 YEARS

Based on estimated cost per kilowatt in Canada based on fuel and maintenance

