



# African Solar Success Stories

## Outback's New Face

Years ago when some disgruntled employees left Xantrex Technology to start their own inverter company, they found an empty building behind the original Trace/Xantrex headquarters in Arlington, Washington. They had not decided on a company name yet, but when Xantrex employees started referring to them as the guys “out back”, the name stuck. Although there was no link with Australia, the name was fitting as it evokes the idea of tough conditions and tough equipment and Outback has built a reputation on reliability.



If you have not checked in on Outback lately, the big news is lower price, upgraded features and awesome remote monitoring. There has been a concentrated effort to fit what was originally a standalone or backup inverter into a new role as a grid-connected backup inverter that can reduce your grid power consumption and show you what it is doing. But Outback's approach is a bit different than many off-grid inverter manufacturers who assume that larger systems will be accomplished with AC coupling and phase shifting. Outback does not phase shift and instead offers up to 10 inverters stacked in a DC coupled system.

Having developed and refined the Radian firmware to handle almost any grid-interaction scenario, Outback decided to make that a free upgrade on all of their inverters. You might notice the new “R” in their part numbers – this is to indicate that the inverter now has the Radian capabilities. What does this mean for you?

“Radian” firmware will allow you to choose from the following modes of interaction with an AC source:

### **Generator**

- The Generator mode allows the use of a wide range of AC sources, including generators with a rough or imperfect AC waveform

### **Grid Support**

- The Support mode is intended for systems that use the utility grid or a generator. If large loads are required, the FXR inverter augments (supports) the AC source.

### **Grid Tied**

- In addition to using power from the utility grid for charging and loads, the inverter can also convert excess battery power and sell it to the utility grid.

### **UPS**

- In UPS mode, the FXR parameters have been optimized to reduce the response time. If the utility grid becomes unstable or is interrupted, the inverter can transfer to inverting with the fastest possible response time.

### **Backup**

- The Backup mode is intended for systems that have utility grid available as the primary AC source. This source will pass through the FXR inverter's transfer circuit and will power the loads unless utility power is lost.

### **Mini Grid**

- In Mini Grid mode, the FXR inverter automatically rejects an AC source and runs solely from battery (and renewable) energy. The inverter only connects to the AC source (usually the utility grid) when the batteries run too low.

### **Grid Zero**

- In Grid Zero mode, the FXR inverter remains grid-connected, but prioritizes the use of battery or renewable sources to run loads. It uses only renewable energy to recharge the batteries.



The list of options is a bit staggering, but that's why the Outback is called "the engineer's inverter". There

is an option for everything! Normally when a manufacturer upgrades their features like this, they are looking for a way to increase price, but instead Outback has cut their price significantly. We can now sell Outback inverters between 22% and 35% below what we could just a few months ago.

And finally, the remote monitoring is impressive. We were standing in a hotel in Abuja and a customer scrolled through his phone showing me the graphical display for a number of clinics operating Outbacks around Nigeria – we could see the immediate status and daily performance of each system. All of this is free and included in the purchase of a Mate3 controller, which is required for the new "R" series inverters.

So if you are looking for a tough inverter to provide critical loads and to interact with grid or generator to maximize your savings, the new Outback range is a good choice. And now you can do all of that for a lot less money.