

## Float Fish Farm



Not only has the system saved me money, I'm also earning income from the alternative energy generated.

**Dale Hudson, Float Fish Farm**

Energy Solutions have developed reliable and durable off-grid power and control systems for many industrial situations. Consequently, when they were commissioned to develop a system for a fish farm in Peterborough, they were keen to take on the challenge.

The customer had recently purchased a new site. It did not have any mains power and the cost to install it was prohibitive due to requiring extensive cabling and building a sub-station. The decision to go off grid was made and Energy Solutions started assessing the requirements for the growing 55 acre site.

The bespoke system needed to incorporate generators, inverters, batteries, solar and eventually wind turbines. The Engineering team undertook site visits and assessments to understand the large range of requirements.

Energy Solutions designed the complete control and monitoring system, with power being provided from Victron inverters and chargers and a large battery bank. This is supplemented by generators and a solar array. The important issue for the customer was to be able to control precisely his power needs across the site, including tank pumps, feeding systems, lights and heating. The E-Plex system allows them to do this. The customer is able to control everything from a single touch screen display. The system controls

the peak power management and reduces the size of the inverter system and keeps costs down.

As the business expands and develops, the owners have seen the bonus of adding additional power sources to the system. A 9.45 kw ground mounted solar array has recently been added and the next step will be a wind turbine. Both options will be able to add free power to the existing system. The business has linked their solar (and wind when connected) to the governments Generation Tariff, which pays owners an index-linked fee for using alternative energy rather than fossil fuel.\*

This system was a complete bespoke design in cooperation with the business owners to ensure that the functionality offered a economical and durable solution. It was also very important that the system was expandable and flexible, allowing for the growth of the business and for new options and incentives to be incorporated as they become available.

\* currently 37.8p per kw hour.

### Solution

E-Plex controlled off-grid system incorporating:

- 4x Quattro 48/5000/70
- 9x Skylla 48/50
- 3000Ah Batteries at 48V
- 40x 220w Solar Panels
- 3x Solar Inverters

### Inverter / Charger room

