

Designing control systems that bring your application to life.

- Stand alone, low maintenance operation
- In built battery monitoring
- SMS message, feedback and alarm monitoring
- User programmable run periods
- Batteries maintained by wind turbine or other renewable energy source

Stand alone pumping system!

It may look like an interesting take on the "TARDIS" from the BBC'S Dr Who series, however its actually an intelligent self contained ground water pumping station.

Horizon were approached to provide a control system that would be able to start a generator, and run two water pumps based on high level float switches in water sumps in the ground.

Depending on the amount of rain fall the pumps may not be required at any predictable interval, so keeping the system alive with power was a significant design factor.



In order to overcome this problem Horizon integrated a variety of products, centered around a Mitsubishi Alpha controller.

A 24v battery bank provides power for the Alpha controller, this is maintained with a wind turbine coupled with an intelligent charge controller.

When the pumps are required the Alpha controller starts the generator and monitors it to ensure a correct start up. Once the mains power is present the pumps are engaged, at the same time a mains powered battery charger is used to top up the batteries if required. The charge controller also monitors the batteries at this point.

A starting cycle was also programmed into the Alpha, at a user set time interval, every Monday for example, to maintain easy starting and protect against a lack of wind.

A remote view panel was installed for the charge controller so it can easily be viewed by maintenance personnel, the display shows the condition of the batteries and how much charge has been delivered from the wind turbine.

This system is designed to take care of the water level with minimal supervision. To help achieve this an SMS modem was also integrated to provide running information and fault messages. It also provides maintenance personnel the ability to keep track of hours run to maintain the fuel level.

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