

Utility case study



KiWi Power works with major water utility Sembcorp Bournemouth Water

Key project benefits



System
resilience



Zero setup
costs



New revenue
streams



Reduction
of CO₂



Access to real
time energy
management
dashboard with
enhanced
monitoring
features

Making demand response work for water utilities

Sembcorp Bournemouth Water (SBW) supplies over 140 million litres of drinking water each day, to nearly half a million people from its base in Bournemouth reaching its network in Dorset, Hampshire and Wiltshire. In 2010, SBW committed close to £50 million to improve process efficiencies over a five year period.



SBW currently have three operational demand response sites which utilise assets at water treatment works and supply pumping stations with a combined load replacement capacity of 2MW.

Regular, successful resilience testing of SBW systems is vital to the site's maintenance strategy. Participation in demand response with KiWi Power means SBW can:

- Operate a full contingency backup and system readiness testing process to ensure its operations are fully functional
- Earn a recurring revenue stream
- Reduce CO₂ emissions.



How KiWi Power delivered for Sembcorp Bournemouth Water:



Assessment and design

- KiWi Power's engineers visited each of the three identified sites Aldernay Waterworks, Stanbridge Pumping Station and Knapp Mill Pumping Station. KiWi Power met with operations staff and conducted detailed assessments to identify appropriate assets for use in demand response.
- A thorough technical report and commercial proposal was prepared by KiWi Power and presented to the SBW management team.



Installation

- KiWi Power worked in partnership with SBW, contractors and the local meter operator to develop a project management plan, installation risk assessment and method statements.



Delivery

- KiWi Power installed and commissioned a one minute meter to integrate with onsite high voltage metering systems.
- Data is collected through pulsed outputs at different points and reported via KiWi Power's control centre to National Grid.
- KiWi Power's wireless internet protocol technology remotely activates the asset turn down and controls on site providing the visual command for shift operators to start local diesel generators and stop scheduled pumping where applicable.
- This process was rigorously tested and a full onsite training programme was completed with each site prior to deployment.
- The entire project was delivered within time, quality and cost parameters.

A word from our client

About KiWi Power

KiWi Power is the UK's leading demand response aggregator and has been a key player in the UK market since 2009. We are passionate about driving innovation in technology to create efficiencies, generate commercial opportunities and promote a green agenda. We work confidentially with policy makers and system and network operators, navigating the energy landscape to provide clients with robust and best in class technology and hardware.

Combining proprietary hardware and software and experienced teams, KiWi Power delivers significant commercial returns and sustainability benefits to large consumers of electricity, utilities and grid operators.

Demand response is a unique and powerful application using technology to reduce electricity consumption at peak times across industrial and commercial sites. This creates a greener, more cost effective grid, reduces the need for inefficient backup power stations and provides vital balancing requirements and security of supply to system operators and end user sites.

KiWi Power's innovative approach is leading the way in evolving the UK demand response market as well as influencing the design, build and operation of demand response programmes around the world.