Case Study: Remote monitoring and control of a widely dispersed estate of gensets

Based in Ramsgate, UK, Cummins Energy Solution Business (**CESB**) is part of Cummins Inc., a Fortune 500 corporation and the world's largest manufacturer of diesel and gas powered engines.

CESB's Operations & Maintenance team is responsible for managing after-sales requirements, ensuring that CESB can support all their customers throughout their territory in Europe, the Middle East and Africa.

CESB needed a flexible, scalable and secure remote monitoring system that would address their requirements, including the facility to:

- see a consolidated view of their entire estate of genset from a single login;
- rapidly log large numbers of parameters;
- view the live performance of any one of their sites;
- compare and chart large numbers of parameters;
- carry out correlation analysis; and
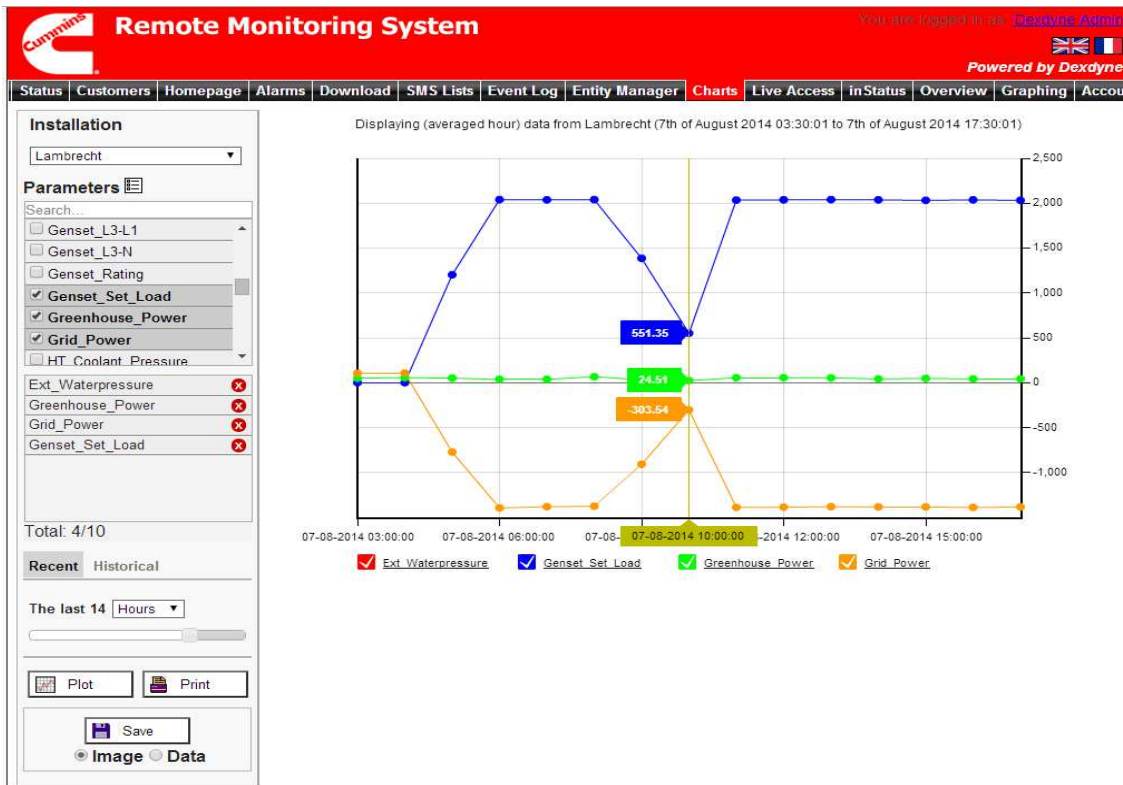- execute the remote start and stop of an asset.

Having considered other products on the market, CESB chose Dexdyne's remote management system (RMS) because it ticked the most boxes off-the-shelf for their requirements.

Fig.1 - A Complete Overview of the Estate

Dexdyne rose to the challenge and, within six weeks of the initial agreement, provided a configured system for CESB to trial at a nearby hospital site. This successful trial led to CESB rolling out Dexdyne's RMS solution to all their sites in the UK, Belgium, Spain, Sweden and Nigeria.

Dexdyne's innovative web-based solution securely delivers detailed operating information about the generator sets in real time 24/7 to both engineering staff and management, wherever they happen to be. This real-time information also enables users to react rapidly to SMS alarms and other exceptions and thus helps to optimise the performance and efficiency of their operations.
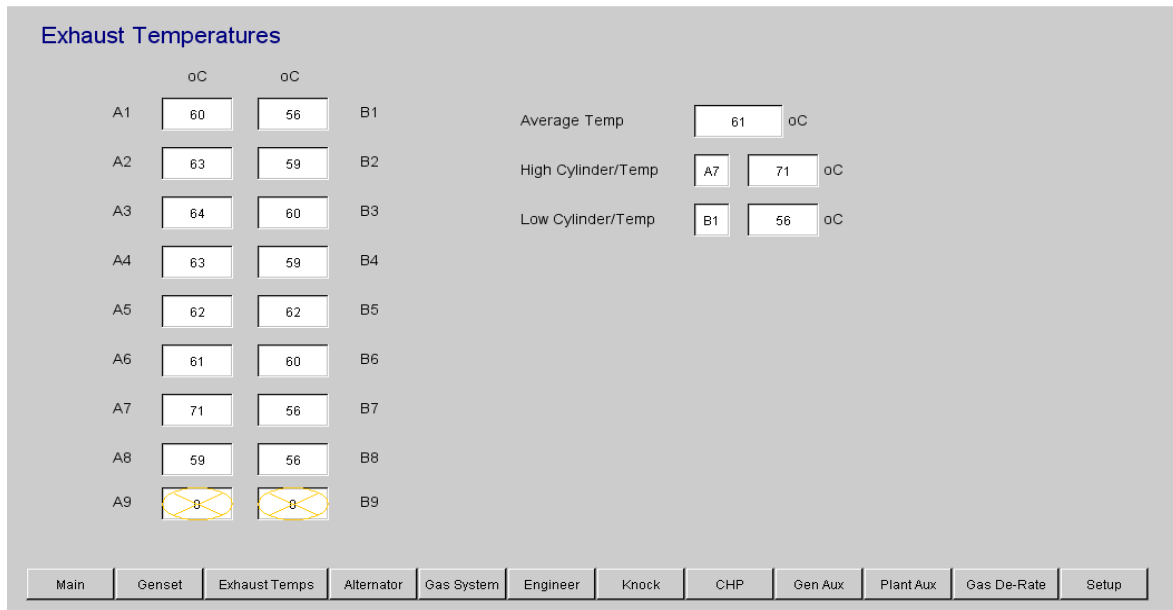
Fig. 2..Analysis using Charting

Dexdyne's RMS solution not only provides remote monitoring but also remote control (including restart) of generator sets. In addition to delivering very detailed real-time engineering data, it can also generate and deliver a higher level reports that business managers need to monitor, viz. historic power output, generator downtime, etc.

Fig. 3 – Example Report

The Dexdyne RMS solution is a fully scalable and customisable system, enabling multiple generators and multiple sites to be managed through a single dashboard to suit the operational needs of any organisation. In short, it makes it possible to manage a dispersed infrastructure efficiently and with ease. In terms of user architecture, there is no limit on the number of authorised users of the system. The RMS can be easily configured to enable any number of different authorised users within an organisation to have access to the information that is relevant to them only. The system has been further enhanced for CESB to allow failure event analysis by capturing rapidly changing pre- and post-event data.

Fig. 4 – Visibility of live site

"*We are now using Dexdyne's RMS system successfully at several of our UK and international locations. It makes it much easier to manage multiple engines*", said Will Stumpf, Aftermarket & Strategic Project Leader at CESB. "*The Dexdyne Enterprise dashboard is intuitive and helps us support our customers better and keep our engines operating at peak performance without needing somebody on site all the time.*"