

# Intelligent thinking reduces business continuity risk during limited power conditions...

Our customer is one of the Big Four global accountancy firms and has a UK estate of over 20 buildings accommodating more than 11,000 employees.

## **THE CHALLENGE**

As the electrical infrastructure of the national grid becomes ever more strained, the need for a resilient backup power solution capable of providing support over a sustained power outage becomes increasingly important.

After occupying 5 floors of a prestigious office development in Birmingham our customer found themselves with a backup generator and static load shedding system that did not meet their risk management requirements.

Limited space and structural loadings prevented the generator system from being expanded economically. An alternative approach was needed, and based on previous achievements for the customer, Pillinger Controls were challenged to design a dynamic load management system to be integrated into the BEMS with improved functionality and flexibility.

## THE SOLUTION

### Understand the requirements

Instigated design workshops with the client, electrical contractor and generator supplier, to identify all the client's requirements and any limitations of the installed equipment.

### Generate accurate electrical load profile

Carried out detailed studies of the dynamic electrical load to generate an accurate live load profile of the occupied space.

### Enhance the BEMS

Designed and implemented a system based around Trend IQ controllers and XNC integration. The system monitors both the electrical usage prior to loss of power and loading of the generator post loss, so that controllable loads can be dynamically added or removed, according to their priority and available capacity.

### Create intuitive interface

Developed a simple graphical interface to allow users to make informed decisions about altering the priorities of the controllable loads. These include manual overrides and safeguards to prevent overloads and excessive strain on the generator.

### Test

We carried out extensive live testing in conjunction with the electrical and generator contractors to ensure the system performed as designed.

### Go Live

Achieved sign off from the client at the first witnessing.

## THE BENEFITS DELIVERED

- A dynamic system integrated into the existing BEMS system that provides a long term risk management solution for power loss situations.\*
- An intuitive interface that gives the customer flexibility to adapt the system to changing business priorities either in advance or in a live situation.
- Significant cost savings over other alternative approaches

\* The system subsequently had a real-life test due to a widespread power outage across Birmingham and performed perfectly.



## ABOUT PILLINGER CONTROLS

Established in 2003 by a collaboration of highly experienced BEMS engineers, Pillinger Controls has earned a great reputation as an innovative, forward thinking and expert provider of Building Energy Management Solutions.

We combine the latest technology with innovative engineering to minimise energy consumption, maximise building services performance, and deliver building environments that are fit for purpose and easy to manage. Our services range from design and consultancy through to improvement projects, ongoing services and support.

## GET IN TOUCH

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