



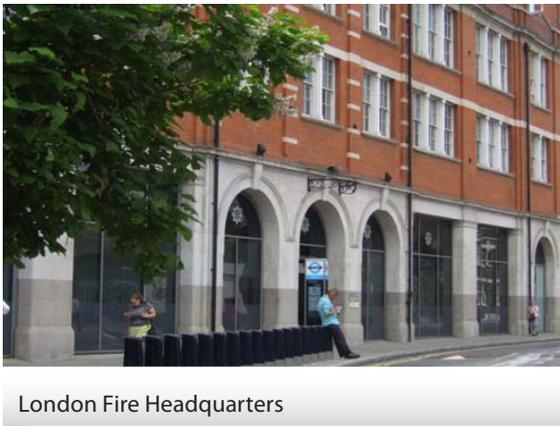
Case Study



Carbon Management

London Fire Brigade – one of the first on scene for CRC

London Fire Brigade is a long-term user of software products produced by TEAM – a leading UK supplier of energy management solutions. The fire brigade has successfully adopted one of TEAM's latest software developments, TEAM CRC software, which complements their Sigma software suite and will ensure they are CRC compliant.



London Fire Headquarters

Background

London Fire Brigade (LFB) is the UK's largest fire and rescue service and the third largest fire fighting organisation in the world. They work 24 hours a day to keep the British capital safe from fires. The fire brigade own a total of 120 buildings, including 113 full time fire stations (ranging from over 2000 to only 350m² in size), headquarters a museum and a training facility. LFB's annual energy spend stands at £3m.

London Fire began using TEAM software in 1990 when they selected TEAM's energy monitoring and targeting software to manage their utility bills and consumption data. Since then they have continued to invest in this system; adding new functionality over time, which includes a software module to produce Display Energy Certificates, and most recently integrated CRC software. In the past 5 years, LFB Energy Manager Ian Shaw and Assistant Energy Manager Grace Lukumoi have implemented an impressive array of carbon saving measures across the estate.

Reducing carbon emissions

The fire brigade energy cutting programme was initially triggered by a target to reduce carbon emissions across the capital introduced by London's former Mayor, Ken Livingstone. LFB were awarded a budget of £4.4m to help them reduce their carbon emissions. The project was originally funded until the end of 2008, but this was later extended until March 2010; including grants the further funding this came to a total of £5.3m for carbon-saving projects. Measures ranged from installing energy efficient lighting, boilers and loft insulation to larger-scale projects like installing micro generation technologies in a number of London's fire stations.

To increase energy awareness at site level, Green Champions have been nominated and formally trained for each fire station. "They are our eyes and ears in terms of spotting potential energy savings and they know their sites," explains Ian Shaw. And all the hard work is paying off. Overall emissions are down by 20% compared to 1990 levels despite the significant growth of the organisation. "We use the TEAM Sigma software to keep track of the savings and the benchmarking reports to identify which sites to target first for improvement projects. It also allows us to evaluate the success of projects we implement," Ian explains.

CRC Energy Efficiency Scheme

With the start of the first phase of the CRC Energy Efficiency Scheme in April 2010, LFB are working hard to prepare for the challenges of this mandatory carbon trading scheme. They have elected to use TEAM CRC software to prepare for registration and compliance with the scheme.



Greenwich Fire Station

“The software just guides you through the process of preparing for CRC. It takes the guesswork out of whether all the data is there and ensures that all the required steps are followed correctly,” says Ian who was amongst the first TEAM customers to have the software installed. In preparation for the CRC, TEAM carried out a database health check for LFB to identify any gaps in the data, eliminate duplicated accounts and highlight missing information like meter types and MPAN numbers, which are required for CRC reporting.

The TEAM CRC software includes comprehensive forecasting tools and scenario planning to help LFB manage the risks associated with CRC. Energy Manager Ian Shaw explains, “These tools will be very useful not only for compliance with the scheme but ultimately to help me plan to achieve the required 60% savings by 2025”.

As part of the Greater London Authority which also includes the London Metropolitan Police and London Transport, LFB was under obligation to become accredited under the Energy Efficiency Accreditation Scheme and did so in 2007. When this Scheme was replaced by the Carbon Trust Standard, London Fire was one of the first public sector organisations to become accredited.

To eliminate the problems associated with estimated bills, over the past two years LFB have been installing automatic meter reading (AMR), which means their meters can be read remotely. LFB have now got smart meters installed at all of their sites for electricity and at 90% of sites for gas. A data collector retrieves and sends this data to the utility provider, where it is used for billing purposes.

LFB purchased the meters rather than having them installed through the utility company, which gives them the freedom to change suppliers to achieve best tariffs.

The AMR together with the Carbon Trust Standard will ensure LFB have a head start into the CRC league table as both count towards the early action metrics.

Display Energy Certificates (DECs)

About half of LFB’s sites require Display Energy Certificates (DECs) and Ian, who was one of the first people to become a DEC Accredited Assessor through TEAM’s training course, has recently completed the second round of DECs using the TEAM software.

“The process is very straight forward as the software automatically retrieves the required data from the Sigma database I have tested other DEC software and found that this required a lot of manual data entry and proved far more difficult.” Ian has also started producing voluntary DECs for the smaller buildings, which are not currently covered under the legislation. “We are aiming to produce DECs for all of our buildings. We use the information contained in the DECs to benchmark our buildings as this not only takes into account the floor area but also how the building is used. There is always room for improvement and we are striving to reduce energy consumption and minimise our environmental impact even further,” explains Ian.

Sigma reporting

Part of LFB’s Energy team’s responsibility is to provide reports and be available if audits of the brigade’s energy data are required. “TEAM Sigma is an extremely useful tool to prove to auditors that we are keeping good quality records of our gas, water and electricity consumption. Recently we had visitors from the National Audit Office, and they were very impressed with the data quality checking, back up and audit trails included in the software”, reveals Ian.

Going forward

Following a planned change of suppliers, one of Grace Lukumoi’s next projects will be to move all billing to EDI (Electronic billing) so invoice information can be imported directly into the TEAM Sigma software without the need for manual data entry. “This will really free up a lot of my time,” Grace comments.

Ian and Grace recently visited TEAM’s Bureau department which provides an outsourced bill validation service. The TEAM Bureau processes in excess of 200,000 utility bills per year on behalf of customers, using the Sigma software. The visit was part of a TEAM project to share expertise and promote best practice amongst their software customers. “Seeing the software being used by the TEAM Bureau was a real eye-opener. There was a lot of functionality we weren’t even aware of and we came back with a host of new ideas on how to improve our use of the software,” recounts Grace..

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