



Energy. Managed.



Oxford City Council Case Study

Electronic Billing Software

Sigma electronic billing system is helping Oxford City Council towards and aim of 5 per cent cut in its 25m/kWh energy use across its estate of 800 sites.

Background

Oxford is a growing city with a diverse population and an emergent economy. With one third of the population aged 18-29, 28% of the residents born outside of the UK and 46,000 commuters to the city, Oxford City Council's aim is to ensure that the seventh most visited city in the UK is a world class city for everyone.

Oxford City Council's Energy & Natural Resources team is responsible for a large estate of over 800 sites. These include car parks, leisure centres, sports pavilions, corporate buildings, social housing blocks and temporary accommodation.

The total energy use in 2016-17 was 25,040,000 kWh at a cost to Oxford City Council of £1,360,000. The five leisure centres accounted for 45% of the total energy use alone. The Council used 145,100 m³ water at a cost of £340,000 during 2016/17. Unsurprisingly leisure centres accounted for 52% of this amount.

Oxford City Council has been working with TEAM since 2010 using the TEAM Sigma software as the council's main energy management software platform.

The challenge

Before applying TEAM Sigma to their practices, Oxford City Council had more labour-intensive utility bill processing systems in place. Collecting and analysing meter readings and AMR data involved multiple spreadsheets with much manual input. Collating consumption data for organisation wide reporting on carbon emissions, energy use, water use and utility spend was a real challenge and a time-consuming process.

Andrew Sunderland, Energy Management Officer commented that “having software specifically designed for energy and water management is a huge benefit. TEAM designed and delivered an Accounts Link module that exports the utility billing information in a format required by our accounting system. This has streamlined the processing of utility invoices and dramatically cut down the amount of staff time spent managing these invoices. They have provided on-premise training to enable us to get the most from the software. Their Mobile App and Sigma Energy Viewer website have really helped to improve collection of meter readings across our estate.”

Monitoring and metering

The Council uses Sigma to upload their meter readings through AMR and billing data, so they can monitor, report and understand their energy usage. This means they benefit from having a central source with all their bill and meter numbers in one place and can load all their billing data for validation purposes. Oxford City Council also benefits from TEAM's Sigma Energy Viewer (SEV) which gives them the flexibility to monitor and benchmark their energy consumption and spend. The automatic meter read validation, through the Sigma Energy Viewer, helps the council to eliminate data entry errors.

EDI billing files

Electricity and gas supplies on the Council's group contracts are invoiced in EDI format. The Sigma Bulk Bill Checker quickly loads large numbers of invoices directly from the utility suppliers, whilst validating against multiple parameters to highlight any billing errors. This removes the need for manual bill entry and speeds up a potentially time-consuming process.

Paper invoices

The Council's water invoices, and a small number of electricity and gas invoices are loaded into Sigma using the Bill Entry system. This provides a straightforward way of entering billing data for payment of invoices and reporting purposes. There are future plans to receive water invoices in EDI format, saving even more time.

Accounts Link

Oxford City Council uses Sigma to process and validate approximately 5,000 utility invoices per year. Payment files are then created and exported into their accounting system.

In 2016, Oxford City Council incorporated this across the organisation. In the first 18 months:

- 8,800 energy and water bills were processed totalling £2,900,000
- £149,400 worth of savings were made by correcting 270 billing errors

The new system:

- saves staff time by reducing administration
- ensures energy and water bills are paid on time
- spots billing errors and tracks them to resolution

Andrew explains “Sigma software identifies and tracks billing errors through to resolution capturing any resulting savings. It acts as a central database for billing, meter reading and AMR data that can all be easily accessed. This enables us to quickly produce reports for different users on utility spend and energy and water usage”.

Sigma Energy Viewer

Sigma Energy Viewer is an easy-to-use browser-based software system which provides a quick overview of site and energy billing data. It enables large multi-site organisations to share energy data with site contacts so they can enter meter readings, view bills and analyse data.

Andrew explains that “this tool provides staff with an easy and efficient way to enter meter readings for their buildings whilst on-site. Readings are validated immediately and entered straight into the database reducing the chance of errors and time spent manually inputting data.”

“We import data from all of our AMR meters into Sigma. This enables us to carry out detailed analysis on energy and water as well as validating consumption on utility invoices.”

The future

As an organisation, Oxford City Council has a carbon reduction target of 5% per year and a water reduction target of 3% per year covering all of its properties and operations. Its aspiration is to set the example of being a sustainable organisation within the city and the wider region. The TEAM Sigma platform helps the Council in achieving these goals by collating energy and water consumption data to verify that it is meeting these targets and identifying areas of overuse that can be targeted for energy and water efficiency projects.