

At that time the largest and most prestigious building project in the University's history, it's also one of the biggest projects BMSi has ever completed. However, a year later, BMSi worked for the University successfully again, installing a brand new BEMS, worth £450k at the newly built Cockcroft Biomolecular Science Building.

And the work doesn't stop there. BMSi and the University are working together to upgrade approximately 90 existing outstations at 12 sites to the latest Sigma BEMS technology. The new system, which will be completed by July 2011, will enable communications over the University's own IT network infrastructure. Not only will this give the University increased functionality, it will also 'future-proof' the existing BEMS.

How well it worked

When the University appointed BMSi, the primary objectives were to reduce costs and improve service. A BMSi engineer is on site two weeks every month, working on maintenance and on project work. A BMSi engineer is only ever a phone call away for the University Estates Team and acts like a service manager in his own right.

The whole system is extremely well managed via the Central 'head-end' Supervisors, which has allowed continued BEMS expansion without taking on additional staff.

All in all, a real breath of fresh air for the University of Brighton – exactly what you'd expect in a seaside town.



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University of Brighton

Working with BMSi

How BMSi helped the fast-growing University of Brighton to reduce costs and improve control.

In October 2008 BMSi was acquired by British Gas Business to help deliver Energy360® to its customers. This was a huge initiative to help businesses reduce energy costs, comply with new energy legislation and achieve environmental responsibility targets.

BMSi had established itself as one of the leading controls specialists in the UK, providing national coverage for multi-site clients, such as the University of Brighton, via a network of regional offices.

Energy360®



“You expect people to do pretty clever things at University. I’d like to think what we’ve done fits in.”

The world of further education is a complex place where academic ambitions are only a part of the mix. John Major’s Further and Higher Education Acts in 1992, which allowed polytechnics to become universities, together with the need to attract fee-paying students from overseas, have placed a high premium on attractive environments that will appeal to students and their parents alike. As is often the case today, the ambience needs to be achieved without swallowing up budget. Says John Axten of BMSi, “Universities need to balance learning with their day-to-day finances, if they are to compete effectively. That makes our role in helping the University of Brighton manage resources efficiently particularly important.”

The art and science of energy

The University of Brighton is spread over five campuses that include sports facilities, halls of residence, administrative offices and faculty buildings. And so a well-managed buildings controls system is essential. In 1999, it became clear to the university management team that the existing system was no longer able to provide sufficient energy management and cost reductions. The University began the

search for a buildings controls supplier that could offer fast response, personal customer service, and be able to take care of the changing needs of an ever-evolving University.

Following a tender process BMSi was chosen and has been working with the University ever since. The University wanted someone to work with them hand-in-hand as they continued to develop and grow. An example of this approach is that the BMSi team will often resolve problems before the user is affected at all.

The cost control challenge

As with so many other post-1992 Universities, the University of Brighton had been created from a number of different educational establishments. This meant that while some buildings were state-of-the-art, others date back to the 1940s and even further. In addition, although the vast majority (some 80% of them) were academic locations, around 5% were residential and up to 15% offered sports facilities. A single approach would not be sufficient.

BMSi set about their first objective, which was to enable the Building Energy Management System (BEMS) to be centrally managed.

Historically, as the University had expanded, so had the number of engineers required to manage and control it. BMSi knew that the very first step towards greater cost efficiencies would come through implementing a more accurate and manageable buildings control system.

This step would allow the University to continue to expand, without adding additional labour to monitor and control the BEMS.

“Our first step was to work with the University’s in-house IT department to develop the communications system. Linking the different campuses meant we would be able to get more accurate and up-to-the-minute data”, recalls Richard Nind, BMSi engineer for the University projects.

By 2002, essential buildings control data was being collected from 35 separate outstations, and viewed in real time by the University Estate Department’s BEMS Supervisor. Manpower University engineers are now able to use their time more efficiently; at the same time frequent and time-consuming site visits have been replaced by a carefully managed programme of jobs, informed and coordinated by the University’s Estates Staff who use site data collected remotely by the BEMS.

Ongoing improvement

The next step was to gradually improve energy efficiency by extending the coverage and sophistication of the BEMS. Guided and directed by the University Estates Team, BMSi has now expanded the system to over 100 outstations and established a new control centre at the Exion 27 building in Brighton. With this setup, and the experience and expertise of the BMSi team, the University enjoys three major areas of benefit:

Scheduled maintenance

As the University expands, BMSi ensures that the BEMS in all buildings is maintained to agreed standards. This also makes certain that there is no drop-off in performance through system degradation.

Responsive

BMSi reacts promptly and expertly amend any issues that arise.

Proactive

Using both their expertise and the BEMS, BMSi endeavours to highlight unusual patterns and act before any issues are even noticed by staff or students.

More ongoing improvement

Since working with the University, BMSi has worked on a series of individual projects, improving the University’s energy efficiency and lowering its carbon footprint further. The solar panels at the Hillbrow campus swimming pool, for example, had already proved efficient. So efficient, in fact, that users found the environment could on occasion prove too warm.

Working with the University, BMSi extended the BEMS to provide hot water generation. Microgeneration projects like this not only reduce the long-term energy cost profile of the campus, but also help the University to meet its environmental targets.

As the University seeks to extend the usage of the campus buildings outside term-time, BMSi has also had to adapt to the challenge of controlling this flexible environment. By integrating inverter technology, BMSi has greater control of temperature and can avoid energy wastage.

The importance of BMSi to the University was underlined in 2009 when it undertook a £250,000 installation of a new BEMS for Phase 4-5 of the Falmer Campus Redevelopment Project.



Data is now collected from 104 outstations.



BMSi has helped to ‘future-proof’ the University’s BEMS system by enabling BEMS communication over the University’s existing IT network.



The whole system is managed via the Central ‘head-end’ Supervisors, which has allowed continued BEMS expansion without taking on additional staff