

3 ways to make a building truly energy-efficient



In the world of facilities management, energy efficiency is a theme that is growing ever more important. With an anticipated surge in energy bills, clients are now expecting FM professionals to provide solutions to their energy management problems. Data, flexibility and people power are key.



For many working within facilities management, the subject of energy efficiency can be daunting. Customers naturally want to lessen their energy bills and will often challenge FM providers to improve the energy performance of their buildings. But what's the best approach?

1: Understand your data

Unplugging electronic equipment at the end of the day or installing energy efficient lighting - or even PV solar systems - might seem like quick wins, but in fact the first thing to do, if you really want to address this, is to understand the data behind energy usage.

Real-time energy data and benchmarking can tell us a plethora of things. With access to detailed information about how much energy is being consumed, more informed decisions can be made on how best to manage energy cost and realise savings.

3 ways to make a building truly energy-efficient



One of the first jobs for any FM professional when looking at improving energy efficiency is to undertake a benchmarking exercise. After looking at how efficiently a building is using energy, comparisons can then be made against how the building was performing historically and also against other, similar buildings. This can become an excellent guide to how to best focus time and resources in the quest to boost energy efficiency.

As FM service providers, we have a unique insight into how buildings are run. We understand the mechanics of the buildings, how they are heated and how their electrical services operate. This gives us an advantage over third-party energy contractors and consultants, as we run the plant that runs the building.

Ever since I have been in FM - coming up for 10 years - I have been baffled at how we can run prescriptive maintenance regimes based on an industry-wide standard. All buildings and assets have different demands placed upon them. The only way to address this is by adopting a tailored maintenance regime.

It's also key to be proactive and energy-led in our approach. A building's chiller, for instance, does not need maintenance just because a generic specification says so. Much better to monitor its performance to see if its energy consumption is rising beyond what we would expect. Then it is time to schedule a maintenance visit.

Clearly, such an approach requires a technology platform that can allow such monitoring to take place. But a change of approach from both FM providers and customers is also needed. When an approach looks at full asset life cycle, maintenance and energy costs as one, we may then see a paradigm shift in the way buildings and assets are managed moving forward.

2: Flexibility can equal profitability

There's a phrase in the world of FM that is gaining a lot of currency at the moment: Demand Side Response. Put simply, it is National Grid's initiative to help keep the grid in balance by offering incentives to energy users.

There are a number of schemes on offer, either allowing the use of an asset such as a generator to export to the grid or else encouraging the reduction (or possibly the increase) of building load on a signal from National Grid. The quicker you response, the more you get paid. So an area we are looking at is making this service fully automated without building user interference (the best way to maximise revenue).

Again, the key is understanding your building energy data – allowing you to match your building energy load to the numerous schemes in this initiative without taking any undue risk.

3: People power is often overlooked – but vital

3 ways to make a building truly energy-efficient



But data and technology is not the only answer to solving energy inefficiency. It's also about people. It's rarely presented as an energy conservation measure, but people power is not to be underestimated.

Changing people's behaviour and educating them on the impact they can have on the building energy performance is vital. For example, do people understand what impact there is in putting a heater on under a desk?

What we need to do is create awareness and understanding through education. We need to promote best practice, challenge habits and culture. Perhaps this involves the use of bespoke programmed dashboards. Or simply educating employees into behaving in an energy efficient manner, as part of the onboarding process.

Energy management isn't and shouldn't just be the concern of those managing a building. It is something that anyone using that building can and should be engaged in. By bringing everyone together working for a common goal, then the outcome can be a truly powerful one.

Simon Farmer

Energy Services Director