

Increase investment in patient outcomes by maximising operational efficiency

Powering a sustainable future for the healthcare sector



The percentage of healthcare respondents who cited managing rising costs and providing a comfortable care environment as the joint number one challenges for the next 12 months¹

Are you overlooking ‘back room’ inefficiencies at the expense of frontline care?

Pressure on UK healthcare budgets is at an all-time high. Cost increases and stretched budgets make coping with growing demand a huge challenge. However, we believe that there are clear opportunities to counteract the strain.

The necessary focus on frontline patient care has inevitably resulted in back room operations being treated as a low priority. In many cases this has led to growing inefficiency and energy wastage, creating a vicious circle of spiralling costs.

Tackle energy efficiency head on and you not only cut costs, but you also free up resources to invest in frontline services. And it can often be achieved with very low – sometimes zero – upfront capital investment.

In our opinion, it’s imperative that healthcare providers grasp this opportunity. The sooner you act, the sooner you can cut costs and direct more funding into patient care.

Mounting pressures drive the need for change

From ageing populations, more chronic conditions and increasing demand, to rising input costs and costly new treatments, the pressure on budgets is relentless. And with annual spending increases having slowed significantly in the last 10 years, current funding simply is not sufficient.

The limited capex available to invest in operational estates also means relying on ageing equipment, in the hope that it holds together, and managing risk of failure.

According to Nuffield Trust, The Health Foundation and The King’s Fund, continued underinvestment in capital projects means that the NHS is having to cope with deteriorating facilities, while facing a £2.8 billion cost to address those parts of the estate with high or significant maintenance risks.²

As if that’s not enough, staff shortages and skills gaps are creating more pressures. In a recent survey for Centrica Business Solutions, one third of healthcare respondents listed addressing a shortage of appropriately qualified clinicians/care specialists as among the biggest challenges facing their organisation in the next 12 months.³

It’s all contributing to an increasing inability to meet government targets. UK healthcare providers clearly need to find ways to address this systematic underinvestment. One way forward lies in utilising new technologies – including in the area of energy – to drive greater efficiencies.



The approximate NHS funding gap by the end of this parliament in 2022/3⁴



The additional funding needed in 2018/19 to prevent a deterioration in patient care⁵



The NHS’s annual spend on maintaining and running its estate and facilities⁶



The percentage increase in emergency admissions in January 2018 compared to a year earlier⁷



The minimum number of full-time equivalent nursing vacancies in the NHS⁸

Getting better: simple energy fixes

Many NHS trusts are running ageing and inefficient energy estates, leading to unnecessary wastage and consuming budget that could be better invested in patient care. We believe it's essential that they eliminate avoidable spend and optimise operational performance.

Skills and resource gaps in operational functions mean that many providers are not managing their energy estates effectively, and lack the time or the expertise to address inefficiencies.

Ensuring accurate monitoring and control

Some energy wastage can be avoided by implementing some relatively simple fixes:

Getting the temperature right: just 1°C of overheating can increase hospital fuel costs by around 8%.⁹

Going automatic: automated sensors can achieve savings of up to 30% on lighting, compared to manual intervention.¹⁰

Maintaining maintenance: a regularly serviced boiler can save as much as 10% on annual heating costs.¹¹

You can also improve operational efficiency and reduce energy costs by taking advantage of more efficient technologies and new approaches to managing energy. On-site generation, such as combined heat and power (CHP) and solar, for example, can deliver significant cost savings over traditional energy sources. Energy Efficiency solutions, such as energy audits and LED lighting, also enable substantial reductions in energy consumption and costs. In Lord Carter of Coles' report into operational efficiency in English NHS acute hospitals, he suggests that the potential cost savings for NHS trusts could reach £125 million per annum if all trusts installed these measures.¹²

£780,000 savings with zero capital investment

When Shrewsbury Hospital needed to cut energy costs and replace ageing systems, we provided a combined cooling heat and power (CCHP)/trigeneration system, energy-efficient lighting and a new building energy management system. For zero capital investment, £780,000 annual savings and improved patient conditions were achieved.

Using energy insight tools

Identifying where energy is being wasted – and so where to start looking for inefficiencies – can be difficult with older estates. Energy insight tools can be invaluable in this scenario. Advanced sensor solutions, for example, let you see exactly how energy is being used, right down to device level. Analytics tools can help you identify key areas where operational efficiency can be improved.

Many UK healthcare providers are already taking advantage of newer energy technologies to tackle inefficiency and make significant savings. One example is St George's Hospital, which, with our help, implemented an energy efficiency strategy, incorporating a new energy centre, CHP unit, efficient lighting and a building management system. The hospital trust is guaranteed to save more than £1m a year over 15 years and will also save 6,000 tonnes of carbon a year.

Overcoming limited resources

Limited resources and conflicting priorities mean that many providers are missing out on these opportunities. But, by outsourcing energy management to specialist companies, providers can access these cost-saving technologies while taking advantage of greater expertise, flexible funding models and economies of scale. For example, establishing a 'virtual estate office' – provided by specialists such as Centrica Business Solutions – reduces dependence on in-house operational staff and frees up operation teams to work on generating new efficiencies, rather than shoring up creaking equipment.

The £780,000 saving achieved by Shrewsbury Hospital could pay for a new MRI scanner, 6–10 consultants or 15–20 nurses/midwives.

What's more, ensuring a flexible and reliable energy supply doesn't just provide cost savings, it also enables healthcare providers to deliver the optimal environment – including temperature and lighting – for patients.

£130 million

The reduction in energy costs that would be possible if just 50% of NHS England utilised solutions such as LED lighting, CHP units and smart energy management solutions¹³

58%

The percentage of healthcare respondents who agreed that "we do not have enough internal expertise to monitor and implement efficiency improvements"¹⁴

>£400 million

The amount the UK's healthcare sector spends per year on energy – a significant proportion of which is wasted – according to the Carbon Trust¹⁵

1 Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

2 Joint statement on health and social care, Nuffield Trust, The Health Foundation and The King's Fund, Nov 2017

3 Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

4 Joint statement on health and social care, Nuffield Trust, The Health Foundation and The King's Fund, Nov 2017

5 Joint statement on health and social care, Nuffield Trust, The Health Foundation and The King's Fund, Nov 2017

6 Joint statement on health and social care, Nuffield Trust, The Health Foundation and The King's Fund, Nov 2017

7 The King's Fund, March 2017

8 Health Service Journal 4/12/17

9 The Carbon Trust Hospital Sector Overview

10 The Carbon Trust Hospital Sector Overview

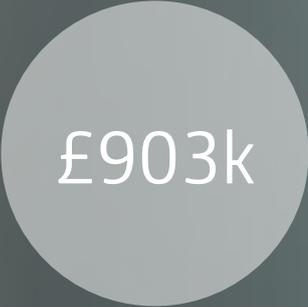
11 The Carbon Trust Hospital Sector Overview

12 Distributed Energy: Powering Britain's Economic Future, Centrica Business Solutions, Nov 2017

13 Distributed Energy: Powering Britain's Economic Future, Centrica Business Solutions, Nov 2017

14 Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

15 The Carbon Trust Hospital Sector Overview



£903k

We saved Solihull Hospital £930k annually on their energy and operational costs by installing a natural gas trigeneration system, as well as distributed gas-fired boilers.



Your priorities

Our experience of working with healthcare providers has highlighted the energy strategies that we believe you should prioritise, enabling you to invest more in patient outcomes:

- **Improve energy efficiency to reduce costs** and free up opex and capex for increased investment in frontline patient care.
- **Understand where you are using energy** to drive one-off and ongoing efficiency programmes.
- **Ensure a flexible and reliable energy supply** so that you can always create the optimal environment for patients.
- **Reduce reliance on overstretched in-house maintenance teams** to maximise efficiencies and deploy resources where they are most valuable.

Our solutions

Our work with leading healthcare providers means we are ideally placed to help you maximise your operational efficiency. We can help you release funding for improving patient outcomes through our:

- **Insight and analytics solutions** that help identify opportunities to improve energy efficiency across disparate healthcare estates.
- **On-site generation (CHP, solar) and Energy Efficiency solutions (energy audits, LED lighting)** that enable reductions in your energy consumption and costs.
- **Flexible funding models** that remove barriers to deploying new technologies and free up capital to invest in enhancing patient outcomes.
- **End-to-end delivery capability and fully-managed service options** that help alleviate skills and resource shortages, enabling you to focus on frontline services.

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