

Case study booklet

How we're building sustainable businesses



centrica
Business Solutions



Contents:

02

Introduction

03

Resilience leads to sustainability

06

Sustainability starts at the top

09

Energy innovation brings rewards

12

Sustainability as an investment

15

How we're making our own organisation more sustainable



PAUL LAWTON

Director, UK & Ireland

Now is the time to act on decarbonisation

Decarbonisation puts pressure on organisations at a time when uncertainty is widespread and financial performance is vital. But leading sustainable business leaders know that acting now, even if it incurs short-term cost, will leave them better off in the long term. They are not waiting for the perfect time to act — they know that the sooner they start, the greater the benefits.

Sustainable business leaders stay head of rapidly changing regulations, by decarbonising before policy demands it and making sure they have the relevant data available to make decisions. Energy strategy is a quick win to be competitive, profitable and sustainable, with many organisations taking full advantage of green financing options to gain a competitive edge. They believe sustainability is everyone's business, but they know they cannot do it alone, embracing partnerships, collaboration and the help of outside experts.

There is no time to waste in cutting carbon and addressing other sustainability issues. The science is clear, and the policy landscape has changed to reflect that. You need to act now to stay ahead of impending regulations, react to market and social demands, improve brand image and help to make a positive contribution to local communities. All of these will help you succeed with your broader business objectives and make your organisation more resilient, competitive and sustainable in the long term.

How Centrica Business Solutions is helping organisations to become more sustainable

We're proud to be helping organisations around the world to navigate their net zero journey and help them build a sustainable business. Through our expertise, commercial strategy and renewable technologies, we are supporting businesses to address sustainability and decarbonisation to ensure their future growth while simultaneously balancing the needs of profit and planet.

In this booklet, we share case studies that show some of the ways in which we're supporting our customers on their pursuit of net zero. They show how we're:

- Acting as a strategic partner to help achieve sustainability ambitions in line with wider business goals.
- Helping organisations build their Energy Pathway, reduce carbon emissions and save energy costs.
- Providing the expertise, resources and technologies that deliver renewable energy projects and keep organisations up-to-date with the changing technology to achieve business resilience and gain competitive advantage.
- Delivering exciting commercial options that deliver the business agility needed to establish and resource new opportunities.
- Eliminating complexity and risk through integrated, multi-product energy strategies.

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability**
 - Global Data Centre Provider
 - County Hall
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable



Resilience leads to sustainability

Acting now to ensure your business can survive future challenges is the key to building a resilient and sustainable business.

We're helping our customers to understand and withstand risks, meet their regulatory requirements, and adapt to changing market and societal demands.

[Read the case studies →](#)

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
 - | Global Data Centre Provider
 - County Hall
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

Global Data Centre Provider

Through intelligent asset optimisation, Centrica Business Solutions generated cost reductions and unlocked a significant new revenue stream for this global data centre provider, whilst continuously safeguarding their site's resilience.

The challenge

As a global leader in enterprise IT and networking solutions, this organisation is a trusted global data centre provider. Their data centre in London carries business critical information, and it's vital that their customers can access this 24/7. Unscheduled downtime is financially and reputationally damaging, so they must have a consistent and uninterrupted power supply.

The solution

Centrica Business Solutions delivered a complete solution to maximise revenues, whilst also safeguarding the resilience of the data centre. A generator control panel and communication units were installed, to allow for two modes of remote generator operation and monitoring: resiliency and running synchronised to the grid. In addition, updating the wider electrical infrastructure enabled the assets to seamlessly operate in emergency back-up power mode, as well as parallel running mode to synchronise to the grid when exporting power. These modifications were completed on each generator minimising any back-up power downtime.

The result

By efficiently managing the generators in the capacity market and in Triad and DUoS avoidance operations, Centrica Business Solutions unlocked a new revenue stream for the organisation, whilst also securing non-commodity cost reductions. The programme helped to underpin the resilience of the data centre. Replacing their aging back-up generator controls and regularly running the generators in response to market events have led to a direct increase in reliability for the data centre. Harnessing the expertise of the Asset Optimisation Team alongside end-to-end optimisation software enabled the assets to be monetised, without compromising the data centre's resilience.

[Find out more →](#)



24/7
asset monitoring

4MW
of flexibility across two
back-up generators

Contents:

- 02 Introduction
- 03 **Resilience leads to sustainability**
 - Global Data Centre Provider
 - I County Hall
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

County Hall

County Hall reduces annual CO₂ emissions by 190 tons

The challenge

County Hall is a major leisure destination in central London. The site, opposite the Houses of Parliament, is home to the London Aquarium, two hotels, a theatre, Shrek World, London Eye, venue spaces, serviced offices and several restaurants. The site operators wanted to improve energy efficiency and reduce CO₂ emissions.

The solution

Centrica Business Solutions conducted a site survey, with analysis of energy demand based on existing half-hourly usage reports. The low NOx E230 CHP unit, installed in the basement, replaces two existing but outdated boilers. Uniquely, Centrica Business Solutions was able to offer a one-stop solution, capable of build, supply, fit and maintenance of the equipment.

The result

The project is expected to deliver energy cost savings of £150,000 per year. In addition, annual carbon savings are estimated to be 190 tons. This is a major contribution for a central London landmark with up to 100,000 daily visitors.

Because of the unique nature of the site – the London Aquarium requires consistent heating 24/7 throughout the year to maintain the temperatures of its tanks, the project is expected to deliver an ROI in less than two years. Under the previous system, energy consumption for the site was in excess of £3 million per annum.

[Find out more →](#)



Being a Grade II listed building, changing to LED and lighting control has helped with carbon reduction targets. The only way we could lower our Building Energy Rating was with CHP.

STEVE MATSON
ELECTRICAL ENGINEERING MANAGER,
COUNTY HALL ESTATE MANAGEMENT



Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top**
 - Pincroft
 - Durham County Council
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable



Sustainability starts at the top

Without strong, consistent leadership and clear internal communication, efforts to embed sustainability will fail.

We're helping our customers develop a culture of sustainability in their organisations, by empowering their teams with the tools and data to succeed.

[Read the case studies →](#)

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
 - I Pincroft
 - Durham County Council
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

Pincroft

Harnessing Panoramic Power™ technology from Centrica Business Solutions, Pincroft can proactively manage energy consumption across their plant – enabling them to reduce energy waste and improve their environmental impact.

The challenge

Pincroft is one of Europe's largest commission textile finishers, finishing a diverse range of fabrics that are exported to more than 80 countries worldwide. Their operations are energy intensive, requiring large amounts of hot water, steam and electricity. They believed that energy was being wasted across their operations, however they did not have the visibility required across their energy-consuming assets to prove this and take corrective actions.

The solution

Pincroft partnered with Centrica Business Solutions to deploy non-intrusive Panoramic Power™ sensors that collect real-time energy data from over 100 sources across their critical energy-consuming assets. In addition, they also leveraged Panoramic Power™ communication bridges to capture third party meters monitoring their hot and cold water, steam and gas, alongside their production lines output. Through PowerRadar™, Pincroft can extract the data to carry out further in-depth analysis in their in-house Power BI platform.

The result

With a payback period of just three months, the energy insights solution has transformed how Pincroft manages energy across their operations. To date, Pincroft has reduced their weekend energy spend by 94% and weekday energy spend by 29%.

Since they now have a clear understanding of the energy consumption of their assets by visualising and analysing their collected energy data in Power BI, they're able to more effectively balance the flow of work through the plant every week.

[Find out more →](#)



3

month payback period

94%

reduction in weekend energy costs

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top**
 - Pincroft
 - I Durham County Council**
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

Durham County Council

Durham County Council has maximised the energy efficiency of select council buildings, delivering a 34% reduction in electricity usage and saving £44,000 per year.

The challenge

Durham County Council wanted to cut carbon emissions and amplify the energy efficiency of its buildings. The Council embarked on a major energy assessment of some of its building stock. In the first phase it tackled larger places of work before addressing smaller, rural offices. In the next phase it wanted to renovate three, large vehicle depots.

The solution

Centrica Business Solutions started by conducting an energy assessment of the three sites. Working alongside the Council, Centrica Business Solutions designed and installed a range of energy saving solutions. These included LED lighting to replace the fluorescent strip lighting, pipe insulation, automatic doors to ensure heat loss was kept to a minimum, and destratification fans. The refits were completed within three months, with all three depots fully operational throughout.

The result

The solution has delivered an immediate impact. Most strikingly, the depots are now warmer and more efficiently lit. "They are more energy efficient now," says Paul Wilkinson, Senior Projects Manager, Durham County Council. "This gives us peace of mind that we are being as efficient as possible, but it also means that the staff working in the depots are benefitting from the changes."

The cost savings have been remarkable. Across the three depots there has been a 34% reduction in electricity consumption (380,000 kWh saved), resulting in a cost reduction of £44,000.

[Find out more →](#)



The LED lighting produced the quickest return. But the range of measures – doors closing automatically, lights going off when no one is in the area, circulating hot air from ceiling to floor - these have all helped to maximise the efficiency of our operations.

PAUL WILKINSON
SENIOR PROJECTS MANAGER



Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards**
 - Eelpower
 - Goonhilly Earth Station
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable



Energy innovation brings rewards

Controlling emissions through renewable energy sources and energy efficiency has an immediate effect on net zero targets.

Our integrated energy solutions help organisations to analyse, finance, install, operate and optimise energy, so you can balance the demands of planet and profit.

[Read the case studies →](#)

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards**
 - | Eelpower**
 - Goonhilly Earth Station
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

Eelpower

Eelpower chose Centrica Business Solutions as their route to market partner to provide guaranteed financial returns for their 10MW flexible asset, while eliminating the risk and complexity of a multi-market approach to optimisation.

The challenge

Eelpower's 10MW battery storage facility at Leverton, near Lincoln, was one of the first cohort of large batteries that provides frequency response and other balancing services to National Grid.

A stand-alone energy barn houses eight 1.25MW lithium-ion based batteries. Together, the facility supports National Grid by underpinning security of supply and helping to reduce energy costs for customers during periods of high demand.

The solution

In 2020, Eelpower agreed a seven-year contract with Centrica Business Solutions for the optimisation of this battery plant. Through a multimarket approach, Centrica Business Solutions looks for opportunities to support the balancing of the grid network, with the aim of maximising revenues through intelligent asset optimisation. Opportunities can be identified from months in advance, right up to real-time.

The result

Through the intelligent optimisation of this battery storage facility, Eelpower will receive a guaranteed financial return per MW per year, with additional payments for every battery cycle from day one of the contract and on top of the guarantee. This provides certainty over when their capital investment in the battery will be recovered. By partnering with Centrica Business Solutions, Eelpower has eliminated the risk and complexity of managing their assets in varying markets, while maximising the value that can be delivered from their assets.

[Find out more →](#)



10MW

battery storage facility

24/7

monitoring of available flexibility markets

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards**
 - Eelpower
 - I Goonhilly Earth Station**
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable

Case study

Goonhilly Earth Station

Goonhilly Earth Station installs 165 sensors to deliver real-time insight into energy consumption and drive efficiency.

The challenge

Goonhilly Earth Station is a pioneer in the satellite communications industry. In recent years, the 164-acre site has branched into data centre services, deep space communications and high-tech manufacturing – all of which have made heavy demands on its energy consumption. The organisation needed an effective way of monitoring usage, with the insight to make actionable changes.

The solution

As part of its £19m Local Energy Market (LEM) trial in Cornwall, Centrica Business Solutions has installed 165 sensors across the Goonhilly site. The wireless, self-powered sensors monitor the flow of electricity and deliver energy information to an online analytics platform that can be accessed from a computer, tablet or smartphone.

The energy insights solution improves operational efficiency, uncovers new growth opportunities and reduces business risk. Goonhilly is one of the largest Energy Insight installations in the UK.

The result

Goonhilly says the data from the energy insights solution will lead to an immediate 10% reduction in energy consumption across the site. Longer term, the visibility of real-time insights and the granular detail of the monitoring are expected to promote cultural change and drive continued reductions.

[Find out more →](#)



165

sensors transmitting
real-time energy data

10%

expected energy savings

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment**
Royal Devon and
Exeter NHS Foundation Trust
The London Borough of Southwark
- 15 How we're making our own
organisation more sustainable



Sustainability as an investment

Cost is stopping many organisations from implementing low-carbon technology. But it is essential to rise above short-term pressures and recognise the benefits of investing in new technologies and processes.

We support our customers in navigating their financing options and managing energy costs, helping them to meet decarbonisation targets and bring in new opportunities.

[Read the case studies →](#)

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment**
 - Royal Devon and Exeter NHS Foundation Trust
 - The London Borough of Southwark
- 15 How we're making our own organisation more sustainable

Case study

Royal Devon and Exeter NHS Foundation Trust

The project, delivered by Centrica Business Solutions, saw state-of-the-art energy technology installed at five sites across Exeter, helping the RD&E to cut its energy costs by 17%.

The challenge

Robert Steele, the Trust's Deputy Director of Strategic Capital Planning, said: "As a major hospital providing round-the-clock services, we consume large amounts of energy so we're committed to a range of measures to help us continually improve energy efficiency. This initiative with Centrica is a major part of our approach to reduce the amount of money we spend on energy and utilities, releasing more funds to invest in frontline patient care and other vital functions. At the same time, reducing our energy consumption helps reduce our environmental impact."

The solution

The installation of a new 1.5MW combined heat and power unit generated power onsite at Wonford Hospital, as well as roof mounted solar panels at Wonford and Heavitree Hospitals and Mardon Neuro-Rehabilitation Centre in Exeter.

Wonford and Heavitree Hospitals also benefitted from new LED light fittings and improvements to the air conditioning systems, while Mardon Neuro-Rehabilitation Centre profitted from the installation of new energy-efficient boilers.

The result

It reduced annual emissions by more than 2,200 tonnes of carbon dioxide – the equivalent to taking more than 1,450 cars off the road.

The work is part of the RD&E's wider sustainability programme to help it lower energy costs and become a greener organisation with a smaller carbon footprint.

[Find out more →](#)



£800k

reduction in energy costs per annum

17%

reduction in energy costs

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment**
Royal Devon and Exeter NHS Foundation Trust
| The London Borough of Southwark
- 15 How we're making our own organisation more sustainable

Case study

The London Borough of Southwark

The London Borough of Southwark has invested in Centrica's solar photovoltaic (PV) at a cost-effective price that will also reduce carbon emissions in the district.

The challenge

The tight conurbation of the London Borough of Southwark presented many challenges in finding a suitably sized building which offered a cost-effective price to introduce solar PV.

The solution

Centrica Business Solutions worked with the main contractor to build the current design and identified areas with sufficient capacity to take additional loads. It also ensured the integrity of the building, and that warranties remained, while also maintaining compliance with current building regulations.

The site has a supply of 2.3MVA which powers heavy process plant, conveyors and odour extraction on a 24/7 operation. The district network operator (UKPN) – played a key role in modelling the installation to determine any adverse effects of PV on such scale in such a tight conurbation, before granting approval.

The result

With constantly varying light and pitch conditions, the optimised solution manages light, shade and varying pitch through module mounted optimisers to ensure each PV module performs to the maximum. The installation led to an overall CO₂ reduction of 337 tonnes, including 256 during phase 1 of the project.

[Find out more →](#)



337

tonnes of CO₂ reduced annually

750kW

peak output

Contents:

- 02 Introduction
- 03 Resilience leads to sustainability
- 06 Sustainability starts at the top
- 09 Energy innovation brings rewards
- 12 Sustainability as an investment
- 15 How we're making our own organisation more sustainable**

How we're making our own organisation more sustainable

With a clear commitment to be net zero by 2045, we are already well on our way to becoming a sustainable business.

Since we embarked on our journey towards net zero, we have set, achieved and exceeded our targets along the way. When we set out in 2007 to cut our internal carbon footprint of our property, fleet and travel by 20% by 2015, we exceeded this target, achieving a 27% reduction. We've achieved this via property efficiencies, employee behavioural changes, utilising technologies such as LED lighting, on-site solar, energy optimisation and battery storage - alongside a move away from upstream generation and production. In 2015 we committed to further reductions of 20% by 2025 against existing levels - surpassing this target only four years later in 2018 – and leading to the creation of ambitions to reduce our internal carbon footprint and customer emissions in line with Paris goals out to 2030.

We're leading an ambitious energy transition by amplifying action as part of our People & Planet Plan – setting targets to help our customers be net zero by 2050 (28% reduction by 2030) while becoming a net zero business ourselves by 2045 (40% reduction by 2034) - five years earlier than its previous goal and the UK deadline.

Why wait to join the transition? Contact us today for support in developing your decarbonisation strategy and becoming a sustainable business.



As we look to rebuild from COVID-19 and our biggest ever transformation, I want to do things differently and reshape our future to one that's fairer and protects the environment. That's why we've introduced our People & Planet Plan to create a more inclusive and sustainable future that supports our communities, our planet and each other.

CHRIS O'SHEA
GROUP CHIEF EXECUTIVE, CENTRICA



About us

Partner with us for integrated energy solutions that accelerate your journey to a low-carbon future, balancing commercial success and environmental responsibility.

We analyse, finance, install, operate and optimise energy, working across every energy source to deliver efficiency, resilience and sustainability. The result is the right energy at the right price – and vitally, the right balance between what's good for your business and the planet we share.

**Start your net zero pathway today
and book a strategy call with us:**

e: centricabusinesssolutions.UK@centrica.com

t: +44 208 191 7126

w: [centricabusinesssolutions.com](https://www.centricabusinesssolutions.com)