

Ensuring operational resilience and safety

Powering profitability for the leisure sector



The percentage of leisure sector respondents who agreed that their organisation's reputation depends on having a consistent supply of energy¹

Reducing risk and ensuring safety

For leisure businesses, having to cancel a high-profile event or suffering an unscheduled facility closure can cause major financial and reputational damage. Operational resilience is mandatory.

Leisure organisations also have a duty of care to their customers. All systems and processes that ensure customer safety must be able to operate in any circumstances.

A secure, reliable energy supply is vital. But evidence suggests that, whilst leisure operators are aware of the importance of energy resilience, many have yet to achieve it.

We believe that energy needs to be at the heart of all leisure operators' resilience strategies. Taking advantage of new technologies and new approaches to managing energy is an imperative for reducing the risks of unplanned closures and ensuring a safe, rewarding experience for customers.

Why the right energy strategy is essential

In the face of evolving threats – from acts of terrorism and cyber attacks to adverse weather conditions – leisure firms need to manage financial and reputational risks. In a Centrica Business Solutions survey, nearly a quarter of leisure sector respondents said that dealing with emerging risks like terrorism and cyber security are among the top challenges facing their organisation.²

An unplanned closure can severely impact revenues and potentially wipe out profits. Businesses estimate that, when both direct and indirect costs are taken into consideration, the cost of an energy-related failure can total as much as 17% of their annual revenues.³ When the 'Beast from the East' hit the UK in February 2018, Edinburgh Leisure, which runs numerous sport and activity facilities in the city, had to take the unprecedented step of closing venues for two and a half days, losing 30,000 customer visits and around £100,000 in income.⁴

The time-critical nature of many leisure events means that power outages – causing cancellations or postponements – can be hugely costly and cause severe reputational damage. With no stock to be sold at a later date, lost revenues cannot be recouped. When a number of theatres in London's West End were hit by a power cut in November 2016, theatre-goers were plunged into darkness and left disappointed that the show could not go on, with many seeking refunds.

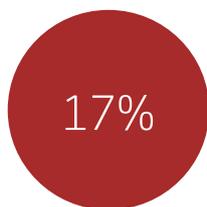
Legislation in areas such as health and safety and corporate manslaughter create additional pressure to ensure that all systems and processes impacting customer safety are completely robust. Fines relating to health and safety breaches increased by 148% between 2016–2017, with the leisure industry incurring fines of £7.4 million.⁵

The breadth of leisure choices available to consumers (including new, interactive types of activity such as immersive theatre, escape room challenges and online leisure activities) means that if a leisure facility is forced to close for any length of time, consumers will quickly find an alternative – and may never return.

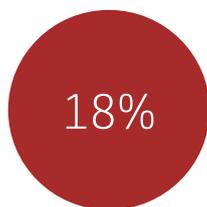
Given the potentially crippling financial and reputational cost of cancelling a high-profile event, or experiencing an unscheduled facility closure, leisure firms need to ensure that every element of their operation is completely resilient. We believe that this resilience can only be achieved by positioning the right energy strategy at the core of their operations.



The percentage of respondents who said that dealing with emerging risks like terrorism and cyber security are among the top challenges facing their organisation⁶



The estimated cost to businesses, as a percentage of their annual revenues, of an energy-related failure⁷



The percentage of energy decision-makers who said that an outage of just one day would be catastrophic for their business⁸



The total cost of fines incurred by the leisure industry between 2016–2017 following health and safety breaches⁹

Ensuring a resilient energy supply

To run facilities, create the right customer environment and maintain operational safety systems, leisure operators need a reliable and secure energy supply. In a survey by Centrica Business Solutions, 68% of leisure sector respondents agreed that their organisation's reputation depends on having a consistent supply of energy.¹⁰ But alarmingly, 29% said that they believe they are poorly or very poorly prepared in terms of resilience to power outages or interruptions to energy supply.¹¹

Picture an evacuation scenario in a high capacity venue, such as an arena or stadium. Any loss of lighting or ventilation as a result of a power outage would have serious health and safety implications. Security of energy supply is also critical in mitigating the risk of any potentially devastating interference with computing systems that control alarms or surveillance.

While the importance of a stable and reliable energy supply is generally acknowledged – 87% of leisure sector respondents said that assessment of risks to their power and energy supply was quite or very important¹² – evidence suggests that many leisure operators are not actually ensuring that their energy supply is resilient.

Only 29% of leisure sector respondents said that their organisation currently has a documented energy resilience plan that is regularly tested, and only 13% have fully assessed the risk of interruption to their power supply in the last 12 months.¹³ Even more worryingly, 71% do not have comprehensive energy continuity plans in place, with back-up generation or standby power, at most of their sites.¹⁴

Achieving stronger energy supply security and continuity

We believe that leisure firms need an energy estate that delivers genuinely reliable business resilience. To reduce their exposure to grid failures, organisations should take advantage of the distributed energy technologies that give them greater supply security and continuity.

For example, **on-site generation technologies** – such as combined heat and power (CHP) generation, back-up generators and solar – are efficient sources of energy production. They enable sites to be more energy self-sufficient, helping to ensure that facilities and safety systems continue to operate in the event of a failure or fluctuation in grid supply.

High-powered lithium-ion battery storage systems can improve resilience by filling a critical gap – from milliseconds to multiple minutes – before longer-duration technologies like natural gas standby can take over.

Case study: As part of a major refurbishment of the Manchester Town Hall extension and Central Library, we installed two 230kWe trigeneration engines to produce the majority of the heat, cooling and electricity required by both buildings. Our CHP system is designed to operate in 'island mode': in the event of an electrical network failure, it can be switched to operate independently from the main electrical grid, providing emergency power to maintain critical public services.

New energy insight and analytics solutions significantly improve operational resilience by enabling more effective predictive maintenance. Energy sensors, for example, highlight anomalies in energy usage. By providing early warning of potential equipment failures, these sensors ensure that remedial action can be taken before the customer experience is affected.

A regular maintenance programme is another essential for ensuring the efficiency and reliability of energy estates. Performance of the whole system should be reviewed annually, and unreliable infrastructure should be upgraded. If regular maintenance is not undertaken, energy consumption can increase by up to 60%. Dirty or faulty fans, air ducts and components, for example, directly affect system efficiency, increasing running costs and risking breakdown.¹⁵

Outsourcing aspects of energy management to a third party – such as Centrica Business Solutions – relieves pressure on overstretched internal resources and can open up flexible financing solutions to overcome capex constraints, making it easier to replace ageing and unreliable infrastructure.

29%

The percentage of leisure sector respondents who believe they are poorly or very poorly prepared in terms of resilience to power outages/interruptions to energy supply¹⁶

87%

The percentage of leisure sector respondents who have not fully assessed the risk of interruption to their power supply in the last 12 months¹⁷

60%

The percentage by which energy consumption can increase if leisure firms do not undertake regular maintenance of their energy estates¹⁸

70%

Rochestown Park Hotel in Cork spends 70% less than grid market costs with its natural gas trigeneration system. Generating a large amount of its electrical demand on-site, it can rely on a constant supply, even in the event of grid power outages

44%

The percentage of leisure sector respondents who have already adopted battery solutions across some or all of their sites¹⁹

^{1&2} Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

³ The Resilience Report, Centrica Business Solutions, 2017

⁴ *Beast from the East* hit Edinburgh Leisure profits, BBC News

⁵ Health and Safety report, BLM Law, 2017

⁶ Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision makers in large organisations

^{7&8} The Resilience Report, Centrica Business Solutions, 2017

⁹ Health and Safety report, BLM Law, 2017

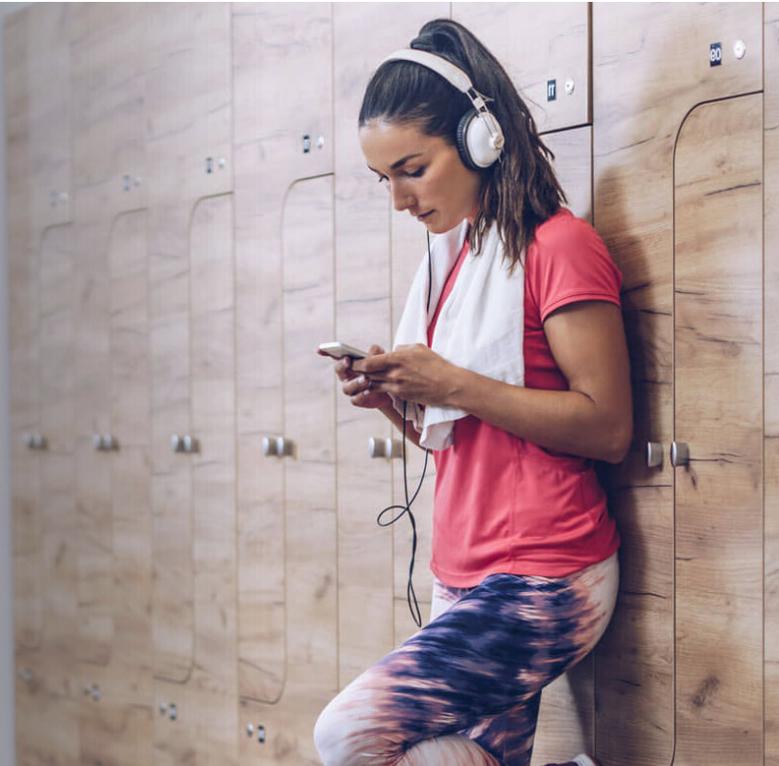
^{10–14} Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

¹⁵ Leisure Sector Overview, Carbon Trust, 2018

^{16&17} Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

¹⁸ Leisure Sector Overview, Carbon Trust, 2018

¹⁹ Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations



24/7
PEACE OF MIND

Having installed CHP units at 13 facilities for Places Leisure, our maintenance package means that any potential issues – online or on-site – are spotted and resolved quickly, providing peace of mind that the generator will always be running.

Your priorities

Our experience of working with leisure firms has highlighted the energy strategies that we believe should be prioritised to minimise business risks:

- **Ensure you have the optimum energy strategy in place** – one with resilience at its core, to support the delivery of safe, rewarding customer experiences.
- **Ensure resilience in every aspect of your operations** – including energy supply and management – with robust on-site and back-up generation measures that reduce dependency on the grid.
- **Take advantage of energy insights and analytics** to identify potential equipment failures, minimise downtime and ensure a safe, seamless customer experience at all times.
- **Ensure that effective maintenance programmes are in place** for on-site energy estates, and upgrade outdated infrastructure where required.
- **Consider outsourcing aspects of energy management** to reduce the demands on in-house operational teams.

Our solutions

Our work with leading leisure businesses means that we are ideally placed to improve resilience through our innovative, end-to-end energy solutions:

- **On-site generation (including CHP and back-up generators) and storage solutions** that ensure a secure and scalable supply to your leisure facilities.
- **Sensor solutions** that help ensure a reliable experience for your customers by enabling early detection of potential equipment failures and allowing you to implement preventative maintenance.
- **Back-up generation** – such as uninterrupted power supply (UPS), batteries and diesel generators – that enable the delivery of a safe and seamless customer experience.
- **Full operations and maintenance support of your energy assets** that ensures the reliability of your on-site infrastructure.
- **Expert advice and energy management systems** that support your health and safety, and help deliver a safe and secure leisure environment.

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