

Future-proofing your company's energy needs

The reward for resilience:
how managing energy risk
could help you on the path to
becoming a sustainable business



#this is
positive
energy

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Chapter 1

Resilience and the sustainable business

Every business relies on energy for critical tasks – but with this dependence comes risk.

So as you seek to become a more sustainable business, it's vital to plan not only for short-term energy continuity, but also for long-term energy needs. Businesses who are automating and digitalising processes, for example, are ever more dependent on the always-on power needed to run them – making it critical to plan for resilience to energy risks.



Businesses who are automating and digitalising processes, for example, are ever more dependent on the always-on power needed to run them – making it critical to manage energy risks, such as volatile supplies and unpredictable prices.



Our latest customer research shows that businesses are making progress on the road to energy resilience. But while awareness of the issue is rising, only a minority feel highly prepared. And it's only a select few (18%) who have moved on to seeing energy as an opportunity rather than a cost.



That makes now the right time to take the next step to becoming more energy-resilient – wherever you currently are on your journey to becoming a sustainable business.

Our customer research suggests a rising awareness of resilience as a risk but there is currently a lack of action amongst the majority of businesses

There's a rising awareness of energy risk

34% identify energy resilience and security as a risk. That's up from 28% in 2017, against a background of rising risk awareness.

Few businesses feel highly prepared

73% say they feel less than "very well prepared" for an interruption in power supply – and it's the more advanced sustainable businesses (52% v 26% of others) who have put in place detailed plans so far, which include assessments of risks to power and energy supply.

Sustainable businesses won't wait

Businesses we identify as "sustainable" are more likely to say they can't wait for power grid operators and regulators to plan for extra capacity in the power system (73% v 62%).



Our viewpoint: The sustainable business

Achieving energy resilience is about more than just keeping the lights on. In fact, it's something you need to do if you want to be a sustainable business in the long term.

From our research we defined what it means to be a 'sustainable business'. The eight characteristics recognise that being sustainable includes a range of criteria. Our model recognised eight characteristics – including not only working to improve the environment, but also having customer focus, continuous innovation and the adoption of long-term thinking.

In this light, being energy resilient is also about enabling the activities and processes that make you the organisation you want to be – whether that's planning for digital transformation, meeting the needs of clients and end users, or supporting how you'll innovate in future.

It's the most sustainable businesses who are less likely to wait for grid operators to plan for extra capacity in the power system – and the most customer-centric who recognise that energy resilience is a selling point for their customers.

Amid challenging times and threats to traditional business models, working towards energy resilience is a valuable next step on the path to ensure your business has long term sustainability.

Eight criteria of a sustainable business

- 1 Having a relentless **customer focus**
- 2 Contributing strongly to **local communities**
- 3 Challenge **legacy thinking**
- 4 Continuously **innovate**
- 5 Understand **external trends**
- 6 Work to improve the **environment**
- 7 Grow its own **talent**
- 8 Adopt **long-term** thinking

See our research methodology for more info on how we've defined a "sustainable" business.

Chapter 2

Rising awareness of energy security

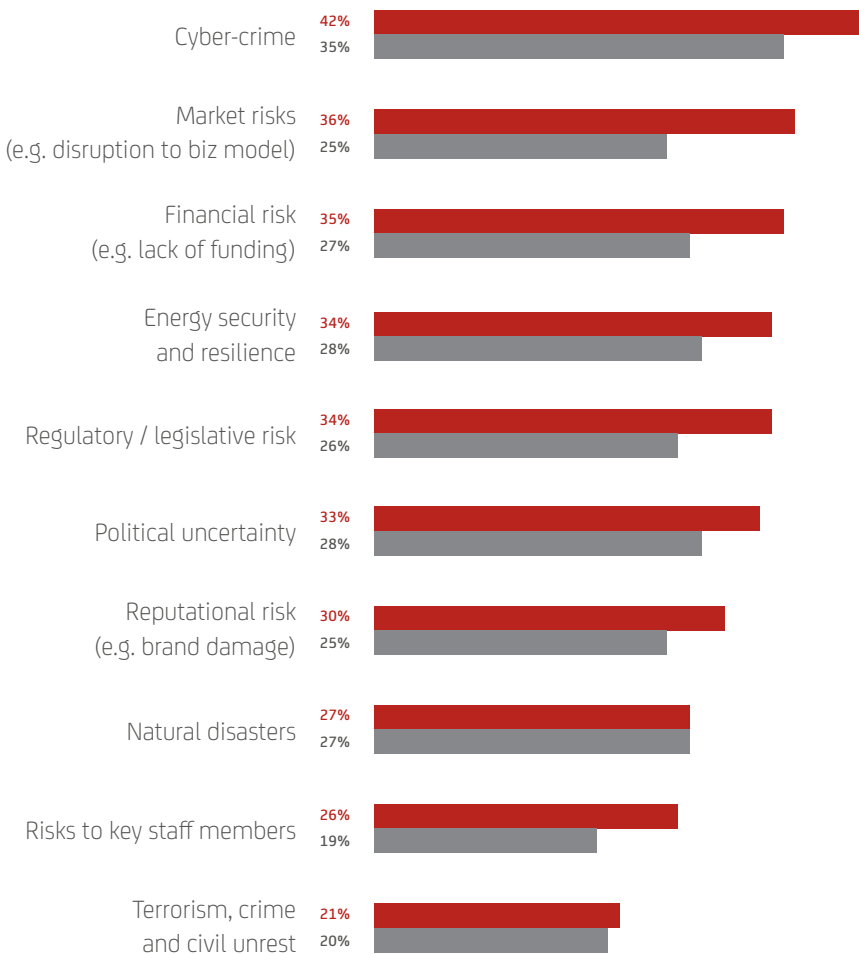
Businesses are increasingly aware of energy security risks – considering it a top-four risk. This plays out against a background of rising awareness to risk, particularly market and financial.

In this climate, businesses are also more likely to be assessing energy risks and to feel prepared to deal with interruptions, the research shows that 73% still feel less than “very well prepared” for an interruption to their power supply.

But while energy risk perception is rising across the board, it appears to be rising faster in Europe – suggesting that this issue not only affects countries who experience extreme weather. Instead, confidence in the grid and geopolitical concerns are also at play.

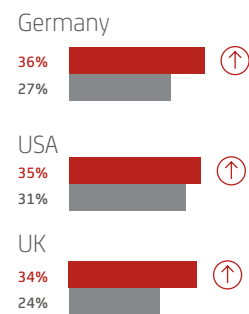
Perception of risk has also risen across many industries – with retail showing the highest energy security concerns. So it is not simply production-focused industries who recognise that energy resilience is a concern.

Energy: a top-four business risk

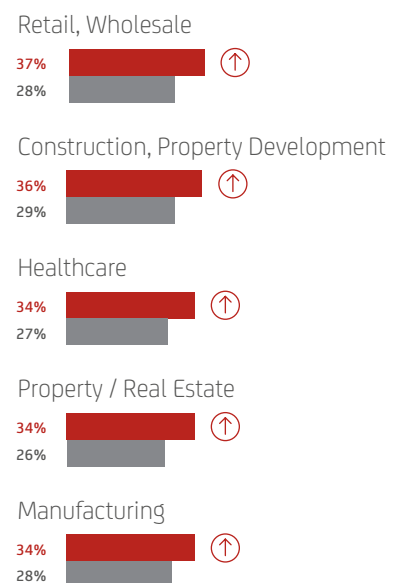


■ 2019 ■ 2017

Risk perception by country



Risk perception by industry



Resilience and the digital business

Sustainable businesses recognise the energy implications of digitalising their business and are more likely to agree that this makes resilience to power interruption “vitaly important”.

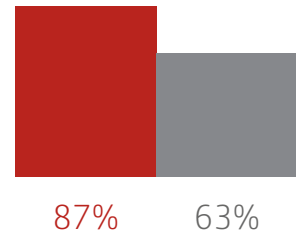
But this doesn't mean they're cautious about innovation. In fact, it's also sustainable businesses who are grasping digitalisation opportunities with the most enthusiasm.

When it comes to creating new digital products and services, for example, 78% of sustainable businesses say that's something they'll be doing much or somewhat more of in future – compared to just 54% of other businesses.

Things are similar when it comes to preparing for agility, using smart data or big data, or increasing automation: in all these cases, it's sustainable businesses who have the most active plans.

This suggests that it's business who continuously innovate who stand to gain competitive advantage – with energy resilience a key part.

Sustainable businesses recognise the importance of digital resilience



As more of our processes and offerings become digitalised, resilience to power interruption becomes vitaly important

Energy and tech: three areas where organisations are looking to be prepared in future



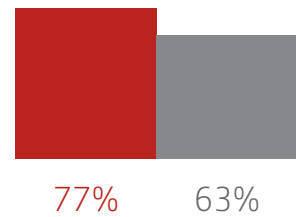
Understanding the energy plans of third parties – for example, cloud infrastructure providers



Using wasted energy from processes



Improving the cooling requirements of new processes



Our organisation's reputation depends on having a consistent supply of energy

■ The sustainable business
■ Other businesses

Our viewpoint

We believe smart integration of energy technologies is one marker of a sustainable business. Those who have made the biggest investments in energy technologies often plan to invest further – for example, using artificial intelligence (AI) and by combining assets in innovative ways.

Battery technologies are a case in point. Businesses anticipate many benefits from these technologies – such as continuity, protection against volatility, and the chance to take part in distributed energy markets.

Businesses who have already invested in battery technologies are already recognising benefits, and these can combine well with sensors and analytics.

Chapter 3

Practical steps

With businesses increasingly recognising the risks associated with energy security, it's important to decide how you intend to respond to the risk.

As a forward-looking business, the best-practice option is to put in place a detailed energy resilience strategy. The benefits of doing this are clear, with research showing a correlation between a mature energy resilience strategy and positive business outcomes. For example, a business with an energy resilience strategy is 34% more likely to report strong financial performance, according to the 2017 edition of our Resilience Report.

But there are also smaller steps you can take; for example, installing battery storage or on-site generation as part of a resilience plan.



Long-term planning: adding resilience to an energy strategy

The most advanced, sustainable businesses are creating detailed plans with relation to energy resilience – and setting targets as part of their energy strategy.

For example, sustainable businesses are twice as likely as other businesses to be including detail in their energy strategy on risks to power and energy supply (52% v 26%) and nearly three times as likely to be setting relevant targets, actions or budgets (34% v 12%).

In the same way, they are more than twice as likely to include detail on ensuring the organisation has sustainable access to the energy it needs, and more than twice as likely to set targets or actions arising from this.



Getting started: benefits of batteries and on-site generation

It's also possible to get started on the road to energy resilience by taking smaller steps – including real-time energy intelligence such as Centrica Business Solutions Energy Insight; battery storage; and on-site generation technologies.

Businesses who invest in battery and on-site generation technologies, for example, are more likely to say this has delivered certain benefits than those who have invested in other technologies. These benefits include improved resilience against supply interruption, and the prevention of a costly operational failure.

Where businesses have adopted battery technologies in combination with sensors

and analytics, this makes companies more likely to realise specific benefits compared to using battery storage alone. These benefits are prevention of costly operational failure; enabling new/flexible ways of working; and reinvesting savings in business growth initiatives.

Awareness is also growing of how battery technology may help companies in future, particularly among sustainable businesses. For example, as many as 89% of sustainable businesses (versus 80% of others) anticipate enhanced resilience from battery technology, in the form of approaches such as seamless transition from grid to backup supply, or improvement in business continuity.

Our viewpoint

At Centrica Business Solutions, we recommend that the process of setting up an energy resilience strategy should involve three steps:

- ① Understand your environment. This includes a detailed engineering study of your sites – with a real-time view of systems and a detailed understanding of potential vulnerabilities, including existing resilience measures such as generators.
- ② Assess your response to a power loss. Assessing how you react to a power loss takes account of the effect it has on your business. This includes identifying critical and non-critical systems, and understanding the effect of an outage on each (some systems may require a long restart even after a short outage).
- ③ Design a strategy. The design of your new strategy is informed by the previous two steps – taking into account critical loads, relative priorities, the speed at which systems respond (back-ups should be able to respond automatically) and the configuration of existing on-site generation equipment.

Power to deliver savings

The power of cogeneration is helping one UK supermarket to save energy costs and achieve its carbon reduction goals.

We're helping one of Britain's leading retailers achieve its energy and cost-saving goals, with Combined Heat and Power (CHP) systems tailored to its stores. Rolled out at 59 sites, the systems have already saved the company approximately £1.28M a year on energy costs and cut CO₂ emissions by 8,100 tonnes a year.

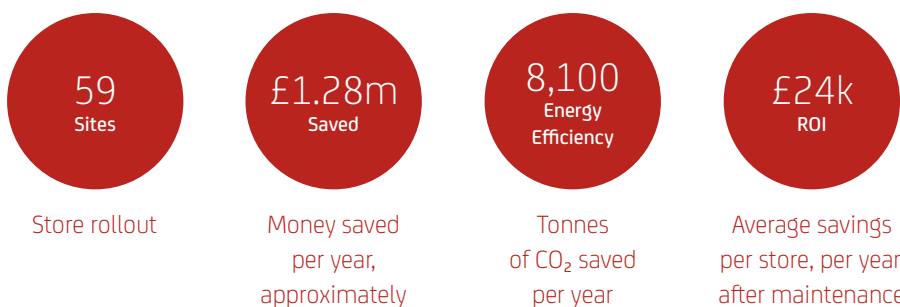
The switch to CHP has not only saved costs, it's also given the retailer greater control over its power and more resilience in its energy supply. After the systems were installed, many stores started to see a return on investment within three years, with average savings of £24,000 a year, after maintenance costs.

Our solution

The CHP systems are up to twice as efficient as traditional generation and capture the heat created in the generation process to provide low-cost heating and hot water. It's a win-win. They can run on any fuel, including renewable biogas and propane.

The results

Because no two stores are the same, we started with a feasibility study at each site, taking account of local needs and restrictions, such as space and layout. We designed bespoke CHP solutions to fit, ranging from large 230kW units located outdoors, to micro-generators built into a small internal room. We also developed bespoke maintenance contracts with constant monitoring to ensure that targets are met.



Next steps

We understand that, as a business, you may need support in understanding energy resilience options – and developing the case for change within your organisation.

To take the next step in protecting the energy supply to your business, we recommend that you:

Benchmark your resilience

We have created an online benchmarking tool so you can quickly see how your Energy Resilience measures up against industry standards.

Talk to Centrica Business Solutions

We can help you to keep your business 'always on' today and protect against future energy uncertainty tomorrow.

Let us help you build the business case

We've created a helpful guide to making the business case for Energy Resilience to the key decision-makers within your organisation.

All of these resources can be found at centricabusinesssolutions.com/resilience

Research

Our 2019 customer survey involved interviewing 1,573 people working across 10 countries in seven industry verticals in January–February 2019.

Organisations needed to fulfil the following qualifying criteria:

- A minimum of 100 employees
- A minimum spend on energy
- Within one of the seven industry verticals
- Trialling or planning to adopt at least one energy technology

The individual interviewed needed to have technical, operational or financial input into decisions about energy and power used by the organisation.

Interviews were conducted online, except in Ireland and Hungary where at least some interviews were conducted by computer-assisted telephone interviewing (CATI). Some questions were not included in the telephone interviews due to time constraints. Where appropriate, this is noted in the base as “excludes CATI”.

This document also refers to the 2017 Energy Advantage programme.



Criteria for a “sustainable business”

At Centrica Business Solutions, we created a model to define what is a “sustainable business” based on our 2019 research. This model relies on survey responses to indicate whether a business meets up to eight sustainable business characteristics. If an organisation meets the required criteria for seven or eight of these characteristics, we classified it as a “sustainable business”. 13% of organisations met this classification.

Our eight-point model draws on the following sources: McKinsey & Company; Harvard Business School; the World Economic Forum; Leonard Sherman; and the Hope College management faculty.

Criteria for “customer-centric”

One of the eight characteristics used in our model to define a “sustainable business” was “Has a relentless customer focus”. This characteristic is defined by an organisation’s survey responses to either of two survey questions related to customer focus. If an organisation met the criteria for the characteristic, we classified it as a “customer-centric business”.

Why Centrica Business Solutions for resilience?

Energy resilience is not just about keeping the lights on. It's about protecting your business systems and precious information resources. It's about managing continuity in the short term – and protecting against energy uncertainty in the long run.



End-to-end capability

Our broad portfolio means we can protect businesses from different kinds of unpredictable events – whether that's volatile markets or extreme weather.

Our on-site generation and battery storage solutions can reduce reliance on the grid and make energy use more flexible. And our monitoring solutions and management teams work to avoid issues developing across energy assets.

Either way, we provide a single, continuous point of contact, to make complex issues simple.



Compliance expertise

Compliance can be complex, but it's an issue no business can ignore. We deploy and manage solutions across 3,700 sites for over 1,000 enterprise and public-sector customers.

Our depth of knowledge and experience – informed by our relationships with regulators – can help customers to operate within global and local regulations, and meet health and safety requirements.

By using our 'energy insight' capability, you can also gain energy intelligence that helps you achieve compliance.



Innovation

We're always looking ahead – investing in businesses and emerging technologies to keep our customers at the forefront of innovation.

Meanwhile our market-leading trading platform, paired with our expertise, minimises exposure to market volatility. And our range of commercial contracts, funding options and "resilience-as-a-service" offering are designed to help manage costs.



FTSE 100 company

Centrica Business Solutions is an established, leading player in the global energy industry. We are a FTSE 100 company with nearly £30bn in annual revenue – and this stability means that we are in no danger of disappearing when times get tough.

We can help businesses to improve the resilience of their energy assets, while minimising commercial risk and providing financial confidence.



About Centrica Business Solutions

At Centrica Business Solutions, we are the perfect partner to help guide you on your journey to becoming a sustainable business.

Our role is to understand your business and your objectives – and help you achieve the benefits of energy resilience.

As a first step, we can map your site(s) and analyse the performance, efficiency and resilience of your energy systems.

We can then identify options to help improve your systems and meet your business objectives. We will develop a plan based on the whole lifecycle, including build, maintenance, measurement and financial planning.

Finally, we can work with you to implement the solution, helping you with every aspect of the build, from commissioning and permissions to financing and communication.

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