

# The new power behind business strategy

Perspectives series  
September 2017

How energy is helping to drive efficiency,  
manage risk and enable business transformation

# Contents

Welcome	3
Attitudes to energy are evolving	4
Energy solutions help business with three key challenges	5
Cost management	6
Risk management	8
Business transformation	10
Summary	13
How Centrica Business Solutions is responding?	14

## Welcome

These are demanding times for businesses. Intense competition, globalisation, and tough economic conditions are intensifying the pressure to reduce costs and improve performance.

**Facing risks as diverse as extreme weather and cyber-attacks, firms are focusing more intently on business continuity plans. At the same time, the digital revolution is changing lifestyles, disrupting business models and acting as a catalyst for change.**

Energy itself is undergoing a transformation, as generation moves towards renewables and decentralisation, while technological advances present new opportunities. Energy now has the potential to deliver competitive advantage, to enhance sustainability and resilience, and to power innovative business models. But equally, the range of new options available is making the management of energy more complex.

Against this backdrop, in partnership with research specialist Context Consulting, we undertook research, interviewing 176 senior executives in large businesses and other leading organisations across the UK, USA, Canada, Ireland, Italy, Germany, Belgium and the Netherlands. We engaged with manufacturers, food and drink companies, real estate firms, retailers, healthcare and education providers, hotels and leisure outlets. We gained insight from people across a range of functions, including finance, operations, facilities and energy management.

The purpose was to understand the wider challenges faced by large businesses, the role that energy plays and how these are changing the market landscape.

Our research identified a shift in attitudes about energy, as firms become increasingly aware of the opportunities it presents. However, we also found that in many — perhaps most — businesses, executives felt they lacked the expertise to take full advantage of these opportunities, highlighting a need for guidance and support.

We also witnessed how forward-thinking businesses are using, sourcing, financing and managing energy to help address three major business challenges: cost management, risk management and business transformation. We have highlighted some best practices from these companies that you may be able to apply in your own organisation.

Whether you are one of the many organisations already using energy solutions or you are still making plans, we hope you find this report valuable. If you have any comments or questions about the report or how to drive your energy initiatives, please contact us via our website [centricabusinesssolutions.com](http://centricabusinesssolutions.com).



**Jorge Pikunic**  
Managing Director,  
Centrica Business Solutions

## Attitudes to energy are evolving

Businesses are beginning to actively manage their energy demand and improve sustainability.

**Historically, except for a select few ‘super users’, energy has been treated by businesses as a commodity to be consumed passively. Energy management has often been limited to hard, price-driven negotiation with suppliers during contract renewal.**

However, this picture is changing. Increasingly, many businesses are beginning to focus more actively on their energy policy, recognising that there are opportunities to generate business value. And this is leading to changes in attitudes and behaviour towards energy.

There is now greater emphasis on managing energy use, through changing employee behaviour and by adopting new energy solutions.

Another factor is the growing awareness of the importance of sustainability and corporate social responsibility. Efforts to drive down carbon emissions are gaining ground.

**Businesses are adopting new technologies to improve efficiency, while more and more are choosing to generate their own power**

New, energy-efficient technologies are having a measurable impact. Many of these have trickled down from the consumer market and are changing expectations in the workplace. ‘Smart sensors’ are a case in point. These are providing businesses with new insights into energy consumption, while solutions such as LED lighting are delivering ‘quick wins’ to reduce usage.

Equally—as energy generation itself is shifting from the traditional, centralised model to one in which more power is generated locally by end-users—we found numerous cases of businesses generating energy through combined heat & power (CHP) plants and solar photovoltaic (PV). Some far-sighted businesses are also taking advantage of the incentives available to them for moderating their grid usage to lower costs and shorten payback times.

**Energy decisions are involving a wider range of stakeholders, and the role of energy managers is becoming more complex**

Energy decisions are no longer limited to procurement or energy specialists. As businesses become more involved in making longer-term energy decisions, we found that a wider set of stakeholders is having a say.

Senior executives, such as chief financial officers and operations directors, are recognising the relevance of energy to their objectives and are bringing new perspectives to bear.

By extension, the role of specialist energy managers is becoming more strategic. They are increasingly more ‘networked’ inside their businesses, working with a wider range of stakeholders, having to prepare and evaluate complex business cases, and working with a growing range of external partners, from major energy suppliers to niche consultancies.

“

Sustainability is not just a fad or a target; it’s a promise to our business customers. This has transformed the way our firm thinks about energy.”

CFO, Food & Drink Manufacturing, USA



# Energy solutions help business with three key challenges



**Cost Management**



**Risk Management**



**Business Transformation**

Changing market dynamics are adding to the challenges faced by companies in three key areas: the need to manage costs more effectively; to address a growing array of risks; and to transform organisations for long-term success.

In each area, best practice businesses are taking specific steps to address these challenges through their own energy management.



# Cost management

Businesses look not only for cost savings, but to mitigate uncertainty.



## Several factors are combining to make these challenging times for businesses in terms of costs and margins.

Competition is intensifying as businesses face new and disruptive entrants who often use digital technologies to develop entirely new business models.

Businesses also have to operate in a more international environment. This creates opportunity, but also uncertainty, not least in managing fluctuating exchange rates, uncertain trade arrangements and additional regulations.

Indeed, this internationalisation itself adds to competitive intensity, as more businesses from far-flung locations enter local markets, often taking advantage of a lower cost base.

Faced with these pressures, businesses are responding in a number of ways.

Firstly, there is a greater focus on identifying and reducing costs in both operational and non-core areas. This has increased the demand for deeper insights into where and how costs are being incurred.

Secondly, there is an increased desire to mitigate the uncertainty and variability of costs, to make it easier to develop plans with confidence.

Thirdly, companies are being more circumspect about capital expenditure. It is becoming more difficult to gain approval for capital projects, especially in non-core areas. Payback timescale requirements are getting shorter, and executives are becoming more creative in order to get projects approved.

“

The lack of data is a challenge. We need to know what our energy consumption is per product line as the market becomes more competitive. We need to know what our factories are consuming to allocate costs appropriately.”

CFO, Food & Drink Manufacturing, USA

## Our viewpoint

“Many of our clients operate on very tight margins and reduced energy waste can improve net profits significantly.

Additionally, businesses often do not realize they have existing energy systems which could become revenue generators, without the need to invest in new equipment.

A great example is the market for demand response. We are paying a major grocery retailer a six figure sum

annually for curtailing their demand for energy on a handful of occasions each year. In their case, the load reduction is easily and safely obtained by reducing refrigeration demands by just a few degrees when needed. This is just one of the many ways businesses of all sizes can make rather than spend money on energy”

Todd Sandford, Senior Vice President North America, Centrica Business Solutions

Best practice businesses are taking several steps to address cost management challenges.

Among the businesses we interviewed, the proportion of operating costs spent on energy ranged from below 5% to over 50%. But across all sectors, we identified businesses who were implementing a range of measures to reduce energy spend. Here are the top five areas:

1. **Finding 'quick wins' to reduce energy demand** through more efficient solutions and by educating employees to save energy.
2. **Gaining control of energy consumption through increased visibility.** Sensors linked to analysis tools provide unprecedented

levels of insight and control, meaning that energy usage and spend is no longer a 'black box'.

3. **Introducing local energy generating solutions** (e.g. solar PV or CHP) to reduce the need to purchase from suppliers.
4. **Funding new energy infrastructure** without major CAPEX by taking advantage of operating expenditure-based commercial approaches.
5. **Turning energy into a new revenue stream** by selling energy back to the grid and taking part in demand management schemes.

“

We use sensors connected to cloud analytics. This is really helping us understand how we use energy and where we should focus our efforts. We go online and benchmark how different parts of the business are doing.”

Operations Director, Food & Drink, UK

“

In combination with our building monitoring system we have motion sensors to turn off lights in toilets. In our new hospital building we'll have them in all the offices. These small savings add up to a large amount at the overall level.”

Head of Estates, Healthcare, Netherlands

### Case study

**Global retailer adopts new energy solutions to achieve wider cost management targets.**

A US-based retailer with 4,000 sites in 26 countries was struggling to manage rising costs in a highly competitive industry marked by tight margins. Energy spend accounted for 5% of OPEX and was a key priority to address in its cost reduction drive.

By adopting new lighting technology, together with networked smart sensors providing real-time insight into consumption patterns across sites, electricity costs have been reduced by 15%. The retailer has now created an energy department which is seeking new ways to address business challenges through energy spend analysis.

“Our business is highly complex. The Head of Operations has a thousand things to think about. But through our focus on energy we are starting to move the needle in the right direction.”

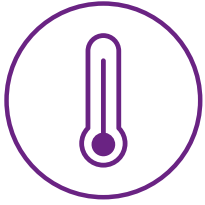
CFO, Retail, USA

4,000  
SITES

15%  
SAVINGS

## Risk management

Risk management is a growing challenge as the number and nature of threats increases.



**In this age of greater unpredictability, we found that businesses are aware of a wider set of risks, both external and internal.**

External risks include terrorist incidents, cyber-attacks on IT systems and the disruption of operations by freak weather. Internal issues include production outages, financial shocks, regulatory infringements, class-action lawsuits and interruptions to supply chains.

Despite their differences, these risks all share the potential to impact negatively on organisations, whether directly or indirectly, and executives have to think more broadly about how best to protect their businesses. Risks vary by sector, but the effects can be equally damaging.

For manufacturing businesses, the most obvious risk is a breakdown in production line equipment, often resulting from a seemingly innocuous component failure or a momentary power outage. The knock-on effects can extend beyond lost production output and wasted staff costs, to damaged trade customer relationships, missed deadlines and the triggering of penalty clauses.

“

We are completely energy dependent and any interruption in supply will stop production, which is our nightmare. Continuity of supply is critical, both in terms of the grid and the performance of our back-up systems.”

**Energy Manager, Food & Drink Manufacturing., UK**

Meanwhile, for a sports arena, hosting tens of thousands of spectators and with millions potentially watching on screen, a loss of power and the failure of back-up generators can create not only embarrassment, but also health and safety problems, as well as reputational damage. There is no better illustration of this than the 2013 Superbowl, when play was interrupted for 34 minutes due to a power failure. It is now referred to as the ‘Blackout Bowl’.

Indeed, with the growth in social media, businesses are learning to their cost how quickly negative stories can spread online, exacerbating the impact of any problems on their brand image. This is felt acutely among hotels and restaurants, where the impact of feedback from review sites is creating a new level of accountability.

Financial risks are no less worrisome. With the growing volatility in global energy prices, businesses can be

faced with sudden and unexpected spikes if they have not made adequate provisions, and carefully planned budgets can be turned upside down.

At the same time, changes to the nature of power generation, including the increased reliance on renewables, mean that there is more risk of blackouts or ‘brownouts’, and the security of supply cannot be taken for granted.

Less dramatic, but equally important, is the fast-changing nature of regulation in all areas of business, which puts firms under more pressure to stay compliant. Failures to comply can result in penalties and fines, as well as the associated costs of upgrading equipment or processes to new standards.

Ultimately, businesses are having to develop more intelligence-based, predictive approaches to managing risks, and are looking for additional support from their energy suppliers to do this.

### Our viewpoint

“As the way in which we generate energy changes, with a much greater focus on renewable sources, resilience cannot be taken for granted. This presents a challenge for many businesses, not least because of the consequences of disruption and its complexity. Every customer has different needs and needs a solution that works for them.

That’s why Centrica Business Solutions is providing resilience as a service. We will worry about which technologies are needed, how to implement, operate, maintain and finance them, and we will underwrite the performance.”

**Alan Barlow, CEO UK & Ireland,  
Centrica Business Solutions**



Best practice businesses are tackling operational, financial and site resilience risks.

Our research identified leading businesses which have taken steps to address business risks through an optimised approach to energy. For these organisations, business continuity means more than simply ensuring the lights stay on. Here are the top five areas:

- 1. Introducing smart sensors to monitor critical production line equipment** so that issues can be anticipated before they become a problem and outages can be avoided.
- 2. Connecting infrastructure such as back-up generators to the grid.** While this is often driven initially to generate income from a feed-in tariff, users are also realising the benefit of these assets being

continuously monitored by an energy partner to remain in optimal condition.

- 3. Going beyond back-up power and installing their own energy generation systems** not only to benefit financially, but to reduce dependence on an increasingly stretched national grid.
- 4. Utilising financial solutions to become more confident in navigating energy markets,** making smarter decisions to reduce risks and avoid unexpected cost spikes.
- 5. Working with specialists to stay ahead** of changes in market conditions, technologies and regulations; and to keep up to date with best practice.

“There’s unpredictability, not only in energy costs, but also on the demand side. Our product mix can change suddenly, and that drives our energy demand mix, which can impact massively on costs.”

Managing Director, Manufacturing, Netherlands

“Aside from cost savings, the biggest benefit we have found from our solar and CHP installations is independence from the grid. We have reduced our risk and gained autonomy.”

Operations Director, Manufacturing, UK

### Case study

**Packaging manufacturer bolsters business continuity by installing generators.**

A mid-sized packaging manufacturer from the northern USA struggled with repeated power outages, costing time and money.

This resulted in wastage of materials in mid-production, while delays in deliveries caused damage to customer relationships and triggered penalty clauses.

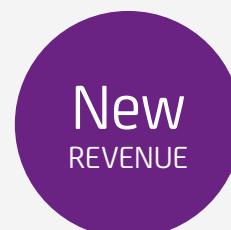
To ensure business continuity, the company recently introduced standby generators which are remotely managed by its energy provider, giving peace of mind that production lines will continue without interruption.

Not only are these assets continuously monitored, but the company now has a new revenue stream,

as the generators are connected to the grid and resell energy in periods of downtime.

“It was a nightmare before we got the standby generators. We would be going down every few weeks, we would have to send people home as we could not get anything done, and it wasn’t safe!”

COO, Industrial Manufacturer, USA



# Business transformation

Operational excellence and business transformation: positioning for the future.



**The third set of challenges relates to the core business of the company, and how to maximise operational excellence for today, while ensuring the business is well-positioned to anticipate and respond to future changes.**

Businesses are looking to maximise agility and flexibility to respond to fast-changing market demands, and to future-proof their businesses in all respects. This ranges from staff recruitment, to training and motivation, to renewing systems, processes and facilities.

There is growing awareness of the opportunity to leverage technologies such as the Internet of Things (IoT) and Big Data to enable this step-change, as well as introducing more sector-specific innovations. But businesses are often unclear about how to take advantage of these new tools to generate competitive advantage.

At the same time, businesses also have to cope with increasing operating complexity. Years of organic growth, mergers and acquisitions and international expansion mean businesses today have a larger number of sites to manage, more markets in which to compete and more regulations to satisfy.

Similarly, the physical fabric within which organisations operate—the buildings and facilities they use—has often grown organically and in an unstructured way over time, leading to a greater contrast between sustainable and efficient new buildings on the one hand, and older stock on the other which is lagging behind.

Especially for businesses in sectors such as healthcare, education, hotels and commercial real estate, which often have large and varied portfolios of buildings, retrofitting older stock can present a major challenge.

For many businesses, the desire to increase the sustainability of their buildings and facilities is a key objective. But while sustainability is important, the complexity and range of options available can make it hard to make the right choice.

“

We need to refurbish many buildings. Many were built in the 1970s and 1980s, and overall maintenance costs are very high. There is a real need for us to optimise our estate.”

Head of Estates, Education, Italy

## Our viewpoint

“We live in a data-driven society. Executives have always lived by the adage that they cannot understand what they can't measure. But now they are realising that tools exist to provide unprecedented insights into all parts of their operations. Many clients in both commercial buildings and industrial manufacturing environments are searching for operational efficiencies more than energy efficiency as an end in itself.

Our energy insights solution from Panoramic Power utilises sensors that are low-cost, easy to install, need no power, and provide businesses with a 360-degree view of all their equipment and facilities.”

Yaniv Vardy, CEO Rest of World,  
Centrica Business Solutions

## How energy is supporting business transformation initiatives.

Some of the most forward-thinking businesses we researched are successfully embedding their energy strategy into their wider business transformation. Here are the top five areas:

- 1. Installing systems to gain real-time insights** into energy and operational performance across the whole estate to understand what is happening at building, floor and device level. This also helps to pinpoint poorly performing systems that may be close to failing, or require preventative maintenance or replacement.
- 2. Upgrading inefficient facilities and infrastructure**, often using self-financing schemes and incentives, to improve business operations.
- 3. Integrating disparate energy solutions** to improve overall performance and supplement crucial business activities. Businesses are looking for ways to connect their energy estate to deliver improved performance, lower bills and facilitate a more sustainable infrastructure.
- 4. Outsourcing energy management to specialists**, thus freeing up valuable time and resources away from energy operations and towards more strategic growth-enhancing activities focused on business transformation in core areas.
- 5. Using energy strategies to enhance brand image and future positioning** through adoption of sustainability measures and future-proofing.

“

One of the benefits of understanding your energy profile is knowing what people are doing and when. The more insight you have into energy, the more you know how things are actually functioning.”

(COO, Healthcare, USA)

“

People really pay attention to this. It adds intangible value. It's true to say that consumers believe that healthcare is better if facilities and buildings are greener.”

(CFO, Healthcare, USA)

### Case study

**UK university adopts smart sensors to gain energy insight and support retrofitting programme to meet sustainability goals.**

A leading UK university with over 20,000 staff and students was committed to a plan of sustainability improvements. But it was struggling to maintain normal operations on campus across lecture halls and research labs as it sought to transform the organisation by retrofitting old buildings with state-of-the-art equipment.

So, the university implemented a smart 'micro grid' connecting different buildings and enabling them to share energy generated by two CHP engines, plus smart sensors and an analytics platform to monitor site energy usage.

The facilities department gained new insights into consumption patterns, helping to identify blind spots where a few, poorly configured systems were draining

large amounts of energy. This also enabled it to identify optimal periods for maintenance and retrofitting activities, minimising disruption to the student experience and ongoing research projects.

“The challenge is always about upgrading our existing real estate without disrupting the campus. Gaining operational insight ties into our wider strategy of improving the student experience and meeting sustainability goals.”

Director of Estates, University, UK





## Summary

- There are clear signs that business attitudes towards energy are shifting, as organisations seek to manage demand and improve sustainability
- Businesses are adopting new technologies to improve efficiency, while more and more are choosing to generate their own power
- There is a significant opportunity for energy strategies to make a demonstrable contribution to improved cost management, risk reduction and business readiness for the future
- With increased choice comes complexity, so there is a need for firms to take advantage of external expertise to simplify and standardise; and to keep on top of new technologies, fast-changing regulations and market trading
- In this new landscape, energy decisions now involve a wider range of stakeholders — from finance to operations and facilities management — as they seek to meet their objectives
- To be well positioned for the future, energy managers are having to adapt, to work with multiple stakeholders and to demonstrate how energy delivers wider benefits to the business

# How Centrica Business Solutions is responding?

## A new approach

At Centrica, we recognise these changes, and we are adapting our own structure to ensure that we can better meet the energy needs of our business customers and large energy users. Our business division, Centrica Business Solutions, is delivering integrated energy solutions using a range of distributed energy technologies, in-house professional expertise and a range of commercial options.

We help customers in three main areas:



### Powering Performance

**Improve your operational efficiency, and drive your business performance with energy.**

Operational excellence and cost management are a key focus for many businesses and energy is a significant factor in both, yet it is often misunderstood and inadequately managed. However, when energy is managed well, it can help address these areas and drive your business forward. We can help you get the most out of your energy resources by introducing new energy insights, technologies and services to optimise your day-to-day performance – and achieve your business goals.



### Powering Resilience

**Keep your business on 24/7, and ensure you have reliable power for mission critical functions.**

As more businesses become digital, the challenge is not just about keeping the lights on. It's about protecting your business systems and precious information resources. It's about managing continuity and managing risk. We can help you keep your business 'always on' today and protect against future energy uncertainty for tomorrow.



### Powering the Future

**Drive your business vision forward and ensure your energy strategy supports your business strategy.**

As market and technological changes accelerate, existing business models are under pressure, but they also provide opportunities to grow in new and innovative ways. The challenge is to futureproof your business and deliver your goals sustainably, understanding the key role that energy plays in your business plans.

# £700m

Investment

# 2,000+

Enterprise customers

## Your power partner?

Several factors make Centrica Business Solutions the ideal partner to develop and deliver your energy strategy.

The breadth of our energy solutions portfolio and our end-to-end delivery capabilities mean we can deliver all of our customers' energy needs. We recommend tailored solutions that meet businesses' specific needs, and we provide a 'one-stop-shop' to make them easy to manage.

We are present in 34 markets internationally and bring our expertise to support customers in navigating the complexity of energy regulations across the globe.

As a FTSE 100 firm with £28bn in annual revenue, a strong balance sheet and our own power stations, we have the financial stability to back up our long-term vision.

We have committed to invest over £700m in our Distributed Energy & Power business by 2020. We have boosted our capabilities by acquiring technology innovators in the energy sector, such as Panoramic Power energy insights, ENER-G Combined Heat and Power and Neas energy asset management capability. We have gas-fired power stations, as well as major international investments in areas such as battery.

## Learn how energy can work for you

Through our global workforce of energy professionals, we already support over 2,000 customers located in Europe, the Middle East and North America.

Learn more about how Centrica Business Solutions can help you power your business ambition by visiting [centricabusinesssolutions.com](http://centricabusinesssolutions.com)



**centrica**  
Business Solutions

[centricabusinesssolutions.com](http://centricabusinesssolutions.com)

©2017 Centrica plc. Registered office: Millstream, Maidenhead Road, Windsor, Berkshire SL4 5GD. Registered in England & Wales No. 3033654

WP-2017-12