

An Energy Strategy for the Boardroom

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As the global drive towards a low carbon economy accelerates – and with the UK committed to achieving net zero carbon emissions by 2050 – the environmental impact of business and industry is firmly in the spotlight.

Where energy use may once have been regarded as simply another expense, the importance of having a formal energy strategy and sustainable working practices is growing – being increasingly seen as an issue worthy of attention at a board level.

Cost remains a key factor with energy use forming a significant proportion of annual expenditure for most businesses – especially those within the manufacturing and hospitality sectors. The good news is a well implemented energy strategy could save businesses 30% on energy expenditure in just three years, while also improving the organisation's carbon footprint. But the potential financial and operational benefits extend far further.

From growing market share to aiding recruitment and competitiveness, a solid energy strategy could be transformational. Which is why it is something that should be considered at the highest levels.

In this comprehensive guide, you'll find advice on making your energy strategy an issue for the board, including:

- Why energy is a strategic issue
- How politics is driving change
- Why it is important to look outside of your organisation
- Why data measurement is essential
- The growing importance of 'behind the meter'
- How to avoid failure



Why energy is a strategic issue

The economics of energy is changing – and changing quickly. Energy prices are continuing to rise, however, organisations are increasingly recognising that energy is not just a commodity, it is also an opportunity.

Few businesses would pass on a chance to reduce their energy costs and improve their profitability. But alongside this, a strong energy strategy can also deliver benefits in the areas of corporate social responsibility, recruitment and retention, and market competitiveness.

For forward-thinking organisations, energy is rightly seen as a strategic issue that deserves and receives attention in the boardroom. These organisations ensure that the energy challenges they have identified are covered in their strategies and have clearly defined actions, targets and budgets.

In the past if a business had an energy policy it was pretty straightforward – ‘How do we manage our energy costs?’

How to avoid failure

Without support from the highest level, an energy efficiency and sustainability programme is unlikely to succeed. There may be quick wins but without sustained enthusiasm and commitment from the board, it is unlikely such a programme will achieve its full potential and drive the long-term change that is needed.

Organisations who are already ahead of the field have invested in this area, such as by employing an Energy Manager or Corporate Sustainability Manager, while others have given the responsibility to a senior executive. They are also working with external specialists, to reduce their carbon emissions and fully capitalise on the potential of renewables.

They recognise that energy affects many parts of the business including:

- Reputation
- Profit
- Performance
- People
- Persuasion

In this report, we will look at all these factors and why a formal energy and sustainability strategy is a matter for the board.

Politics

Net zero carbon by 2050

The energy industry is being disrupted like never before. This transformation is being driven by the global need to cut carbon emissions and the realisation that we will not be able to rely on fossil fuels for our energy needs much longer.

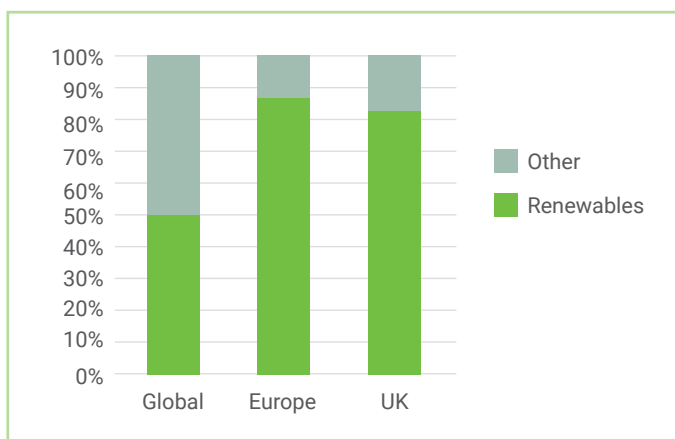
More than 180 countries signed the Paris climate change agreement, confirming their commitment to keeping rising global temperatures “well below” 2C above pre-industrial levels and aiming to limit them even more to 1.5C. This has seen many regulatory demands being placed on businesses to date, with even tighter restrictions likely to be added in the near future.

In June 2019, the UK government became the first major economy in the world to commit to net zero carbon emissions by 2050. This followed an alarming report by the Intergovernmental Panel on Climate Change (IPCC) that warned rapid action needs to be taken if we are to avoid causing irreversible damage to the planet.

In layman’s term, what this means is that by 2050 there needs to be a balance between the total greenhouse gas (GHG) emissions the country is producing, and the total emissions being removed from the environment. In response, more and more companies are now pledging to reach net zero and setting out their roadmap for doing so, seeing it as central to their long-term plans.

With business and industry responsible for around 18% of the country’s emissions, it’s going to take positive action by everyone – from the largest multinational to the smallest sole trader – if net zero is to be achieved.

Against this backdrop, public backing for environmental issues has also reached a record high – 82% of people supporting the use of renewable energy.



The price of battery storage has also tumbled. Storage is seen as the key to unlocking the true potential of this green energy revolution.

The future is renewable energy

Renewable technologies, such as solar and wind, are increasingly being shown to be a strategic long-term investment that can prove valuable on many levels.

New solar and wind installations are being built at an astonishing rate and costs have fallen dramatically in the last few years. The price of battery storage is also at an all-time low, with the technology offering an effective solution for bridging the gap when the sun is not shining, and the wind is not blowing.

A report from Bloomberg New Energy Finance (BNEF) estimates that half the world’s energy will come from wind and solar by 2050. The report suggests the shift away from fossil fuels will be even more dramatic in Europe, with renewables making up 87% of the energy mix and wind and solar being the dominant technologies.

For all commercial organisations, embracing a green future is increasingly becoming a requirement, not a choice, which further reinforces the view that energy needs to be taken seriously by senior executives.

Energy is now an issue that must be taken seriously by senior executives if they are to ensure their company is positioned for growth in the next few years.

The Smart Grid

For more than 100 years the electricity grid changed relatively little. Power was generated centrally and transmitted via cables and wires to energy users. Electricity flowed one way and suppliers billed for the amount of energy a user had consumed.

The 21st Century grid will be very different. For starters, it has needed to adapt to allow electricity to be exported as well as imported.

The rise of decentralised generation from wind, solar and other sources, means the transmission grid and distribution network are having to evolve. They are becoming smarter and more flexible to cope with this distributed electricity, but also to ensure they can meet increasing demands from electric vehicles, smart devices and the Internet of Things (IoT).

We are likely to see the buying and selling of electricity become even more complex. Suppliers will offer different tariffs depending on the time of use and whether demand can be shifted to avoid peak times. Organisations producing their own electricity will be able to sell surplus supplies to a much more fragmented market.

A modern organisation will need to understand its place in this new world and more importantly be able to work out how to maximise its opportunities. Again, this is not something that should be left to junior managers, it must be part of a strategic approach.

Energy is a top five cost for most organisations, for some energy intensive industries it is in the top two.

Profit

Energy efficiency

Energy is a top five cost for most organisations and for some energy intensive industries it is in the top two. It is therefore vital to control this cost as much as possible.

An energy efficiency programme can save up to 30% of energy costs within three years. Many companies have already taken steps to cut their energy use through various means, including:

Building Management System – Installation of an intelligent system to monitor and control a building's mechanical and electrical systems, to ensure the building environment is controlled to the optimum and most energy efficient condition.

Lighting – The installation of energy efficient light fittings and intelligent control systems.

Equipment replacement – Replacing old or inefficient equipment can deliver significant energy savings as well as reduce maintenance costs.

Insulation – Making sure the most efficient level of insulation is fitted to prevent heat loss.

Destratification – A ventilation system that recirculates the warm or cool air generated by existing heating or air-conditioning systems, making sure it is evenly distributed.

Education – Educating staff to reduce energy use by switching off machines and lights that are not being used.

Logistics – Reviewing fleet management and planning of deliveries.

Support processes – Reducing car use e.g. among sales teams; introduce electric vehicles (EVs); encourage video conferencing instead of face to face meetings; reduce printing and keep documents in the cloud.

Measurement is key

For an energy efficiency programme to be truly effective, an organisation must measure its energy usage. This may mean investing in new measurement methods and equipment, such as smart metering.

For some senior teams, this may be seen as an unnecessary expense but that would be a false economy, as reliable data is vital if progress is to be tracked and learned from. It is also likely that organisations may soon need to report in far greater detail on their carbon moving forward.

Strong and accurate data allows for the comparison of similar processes within the same organisation so that anomalies can be spotted, and corrective action taken. Such data also supports organisations to analyse how their use of energy might fluctuate, not just monthly, but day by day, even hour by hour.

Armed with this type of information, businesses can look to improve their expenditure and efficiency to achieve both short- and long-term gains. For many organisations, it can be a real eye opener to see where and how energy is being used.

Energy generation

A survey of international businesses found that 80% believe a quarter of their energy needs will be generated onsite by 2025.

There has never been a better time to look at how your organisation could generate its own energy. In turn, this would mean you will save money by taking less electricity from the grid and could potentially earn money by selling any excess energy you produce.

Taking steps 'behind the meter'

Taking steps behind the meter is about reducing the amount of energy you need to purchase from the grid – both through reducing waste, making sure your organisation is highly energy efficient and by investing in technologies that can help you generate your own power onsite.

Along with reducing your energy use and carbon emissions, the cost savings could be substantial. Especially if you consider that electricity and gas bills doubled in the seven years from 2011.

In addition, taxes and levies concerning business emissions, energy use and wider environmental impact are also likely to keep increasing, as the government drives on with its low carbon agenda.

Electricity and gas bills have doubled in the seven years from 2011 and many predict this trend will continue for the foreseeable future.

This will allow companies that invest in storage systems to use more of the energy they produce, cutting costs and helping them meet sustainability goals.

Energy generating technology

Solar Photovoltaic (PV) – Solar panels can be installed on new roofs at the time of construction or can be retrofitted. They can also be mounted on the ground if sufficient land is available.

Combined heat and power (CHP) system – A gas fuelled engine that simultaneously generates electricity and useful heating and/or cooling. Typically located at the point of use.

Biomass boilers – These burn sustainably sourced wood pellets, chips or logs and are a lower carbon alternative to oil and other fossil fuel boilers. Biomass boilers are particularly useful for organisations with sizeable heating demands such as hotels, nursing homes, leisure centres and poultry farms.

Renewable heat pumps – A heat pump takes the available low-grade heat from the ground, air or water surrounding a property and increases it to a more useful temperature for use in the building.

Electric vehicles and solar car ports – Introducing electric vehicle charging stations will give your business a way of powering vehicles with green electricity generated from solar energy. As the number of electric vehicles on the road continues to rise, solar car ports and charging stations provide a valued facility to staff and visitors.

Wind turbines – Turbines that can convert the wind into electricity. In the UK there has been a move away from onshore wind farms after the government declared they would not qualify for public subsidies.

Energy storage

As well as ongoing advances in solar and wind technology, similar improvements have been made in the area of energy storage. Prices for battery storage solutions have dropped and this has opened the door to greater investment from commercial organisations, who can benefit from the technology in a number of ways.

Batteries can be used to capture and make greater use of renewable energy being generated onsite, for example by rooftop solar schemes. They can also be charged up from the grid when prices are at their lowest, with the energy then released when grid prices are at their highest, helping to reduce costs.

There are also various revenue streams that battery storage can tap into that are designed to help balance the grid. For example, firms taking part in the Demand Side Response (DSR) scheme commit to reducing or shifting their energy consumption when demand from National Grid threatens to exceed supply.

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Performance

Engagement

Having a clear strategy on a core business issue like energy can improve an organisation's overall performance. For instance, a business might ask its employees to make suggestions for how to reduce energy usage. Employees will take ownership of the idea if senior managers make it clear that the organisation will act on their suggestions and managers will be held responsible for implementing them. This can lead to greater levels of loyalty and engagement.

Encouraging the sharing of ideas may also lead to other innovations across the organisation. Some companies have taken a similar approach to health and safety and as well as seeing industrial accidents fall, have gone on to see a rise in productivity.

Data interrogation

Data can be used to understand your organisation's use of energy and can help with comparisons between similar sites e.g. offices and factories. It can also help with maintenance by showing when machinery is not running at optimal levels. In addition, good data can predict when machinery is likely to fail, helping you avoid costly malfunctions and consequent downtime.

Data is increasingly being viewed as an asset, not just a by-product of conducting business. However, an organisation must develop a strategy if it is to make the most of this potential treasure trove of information. Data must be stored well, easily accessible and easily shared. Raw data must be processed so staff can have a consistent and unified view. Only then can insights be uncovered that will take the organisation in new directions.

Supply chain

A large proportion of a company's carbon emissions may come from its suppliers. These are referred to as indirect or 'scope 3' emissions. As such, organisations are increasingly under pressure from their stakeholders to drive down emissions within the supply chain.

Improving the carbon footprint of your organisation can, therefore, give you a competitive advantage. It can be beneficial for future tenders but may also prove vital for the retention of current customers, as they look at these issues in greater depth.

BT is one such company that is focused on driving improvements within its supply chain. It has a Climate Change procurement standard for all suppliers, which encourages suppliers to use energy efficiently and to reduce carbon during production, delivery, use and disposal of products or services.

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People

Recruitment and retention

With millennials making up a growing percentage of the workforce it is vital organisations make themselves as attractive as possible. Research suggests that millennials are three times more likely to seek employment with a company because of its stance on social and/or environmental issues.

In other words, if you want to recruit and retain skilled workers in the future you'll have a better chance if you can demonstrate that your organisation has sustainability at the heart of its strategy.

Engagement

In the past, organisations have made the mistake of paying lip service to sustainability and as a result, have failed to reap the benefits. The secret to a successful strategy is engagement within the organisation.

As we've discussed, this must start at the top with senior management buy in. However, this must be supported by effective communication throughout the business, setting out the goals and the reasoning behind them.

Making changes will take time, so it is important to look for some simple, easy wins too, such as moving toward paper-free offices and upgrading to low energy lighting. If these are achieved it will be easier to implement medium and long-term improvements.

Employees are likely to be sceptical about an organisation's motives for sustainability initiatives and will only embrace them if they are confident the business is sincere. Staff must see there is an economic case for sustainability as well as a feelgood factor.

General Electric's Ecomagination programme is now a \$15bn a year business with the goal of developing cleaner technology solutions. Encouraging staff to think big about how the organisation could change or develop will produce tangible as well as intangible benefits.

Persuasion

CSR

An energy strategy is an important part of any Corporate Social Responsibility (CSR) programme you are running. CSR can be described in many ways but one definition sets it out like this: Corporate Social Responsibility is an ethical management concept where companies aim to integrate social, economic and environmental concerns along with the consideration of human rights into their business operations. A well organised CSR policy will benefit a business in many ways including:

- **Enhancing a company's reputation – A company perceived to be socially responsible will benefit from a better public image.**
- **Higher sales and greater loyalty – Sustainability is increasingly a factor for customers and clients to consider when deciding to buy or use an organisation's products or services.**
- **Recruitment and retention – There's evidence that employees are drawn to organisations that have a strong CSR policy, making recruitment easier. Once employed, staff are more likely to stay at a business which has a strong CSR position, reducing recruitment and training costs.**

Expect your claims to be questioned and held to account. Do not claim credit for anything you are unable to support with data.

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Communication

An energy strategy, particularly one with energy efficiency at its heart, is a gift for marketers, PR, HR and sales teams. It is known that organisations that implement a CSR strategy show long term financial growth and an increase in value. (Note, this is a long-term proposition, and may take several years to impact the bottom line).

Whatever the payback time may be, there will be immediate opportunities to communicate support for a sustainable energy strategy.

Internally this is a great chance for human resources teams to build a corporate community to back efficiency programmes. Regular updates are essential but do not have to be expensive – emails, poster campaigns etc. will go a long way to building a positive atmosphere.

For marketing and sales teams an effective energy strategy is a great differentiator in any pitch process. If all other aspects are equal it may be the factor that gets a deal across the line. Make sure these teams understand the rationale behind the energy strategy so that they can explain it without it coming across as 'greenwash'.

Authenticity of message is also important for social media. Customers and clients expect increasing levels of transparency from the organisations they interact with, no more so than on social media platforms. So, expect your claims to be questioned and held to account. Do not claim credit for anything you are unable to support with data. However, done well, social media interaction over CSR can help to build credibility and loyalty to your brand.

As for PR, any energy efficiency programme will generate potential news lines, for example, the launch of the strategy, important milestones, first in the industry to adopt such a policy. This can help your organisation to earn valued editorial coverage and stand out from the crowd.

Summary:

Power: reputation, profit, performance, people and persuasion

- An energy strategy for the boardroom is essential.
- CEO and senior managers need to understand that energy is more complex than ever and deserves more management time and scrutiny.
- Increased complexity offers opportunities to cut costs and boost value.
- The energy industry is being disrupted by the growth in decentralised renewable energy and the availability of cheap storage.
- The challenge of climate change is leading to more regulations for energy users.
- Energy efficiency programmes can save up to 30% in three years.
- More organisations are looking to generate some of their own electricity.
- Behind the meter activities are growing in importance.
- Good data measurement is essential to any energy strategy insights.
- An energy strategy looks outside an organisation e.g. the supply chain, as well as inside.
- An effective energy strategy forms part of a CSR policy.
- A developed CSR programme can help with employee recruitment and retention, as well as marketing and sales messaging.

About Us

This guide has been written and produced by Anesco, a premier authority on renewable energy and energy efficiency. Since being founded in 2010, we have helped organisations based across the UK reduce their energy costs and carbon emissions.

With unrivalled industry expertise, we use the latest cutting-edge technology to develop and implement energy and carbon reduction strategies that save our customers money, while helping the environment. Our state-of-the-art helpdesk facility, nationwide team of field engineers and extensive client support services combine to deliver the optimal customer experience, while generating measurable business value.

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