LOW CARBON ENERGY

Why renewable energy is the best way out of the current energy crisis

2050

The target for net-zero set by the UK government.

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On the 3rd of February 2022, Ofgem announced an **increase to the consumer energy price cap**

This means that millions of households will see their energy bills rise by **about 54%** from Spring 2022 onwards, equating to an extra **£693 a year**.

Commercial solar panels can provide a useful respite for businesses, but obviously not every individual family can be expected to bear the cost of solar panels.

Experts and politicians alike have pointed out that **the best way out of the energy crisis is for the government to shuffle its priorities**, placing a **greater focus** on **renewable technologies** so that the UK can insulate itself from the fluctuations of volatile gas markets.

Energy crisis underscores the need for net-zero delivery

The current energy crisis is driving a **general rise in the cost of living**, and the vast majority of that is down to the rise in wholesale gas prices.

There's no single cause of this gas price rise – it's more to do with a combination of multiple factors. For starters, the longer winter of 2021 meant that European and Asian countries burned through significantly more of their existing gas reserves in order to heat their homes. The multiple lockdowns that many countries suffered didn't help either, as that meant demand was higher and production was lower.

Plus, the weather was less windy over the last summer. With less wind power available for electricity, that meant that once again the world turned to its existing gas reserves.

Renewable energy enjoys another year of record growth in 2021

The latest report from the IEA notes that the world has installed a total of about **290GW** of new **renewable energy generation capacity**, mostly in the form of **wind turbines** and **solar panels**.

According to the US Department of Energy, it roughly equates to the output of over 900 million solar panels, and it's enough to power thirty-one billion, nine hundred million LED light bulbs. If the current trends remain on track, renewable energy generating capacity is likely to outstrip the capacity of fossil fuels and nuclear energy (combined) by 2026.

Renewables are set to account for 95% of the increase in global power generation capacity from now until the end of 2026. However, it's worth noting that this is still only about half of what's required to meet Net Zero carbon emissions by the middle of the century.

The entire situation has shone a **harsh**, **unflinching spotlight** on **the UK's reliance on fossil fuels**. While we've made some good progress on this front before, we've evidently still got a long way to go, as our domestic gas prices remain inextricably tied to volatile international markets.

Up until now, the main thing protecting consumers from these price rises was the energy price cap.

Ofgem initially resisted moving this cap, to the extent that it even ended up forcing multiple smaller suppliers out of business, as they were forced to buy gas at higher rates than they were allowed to sell them.

But now prices have risen to such an extent that even the price cap can't protect consumers any further, and Ofgem has been forced to raise it. As millions of people are forced to grapple with soaring costs, the government is being urged to accelerate the nation's shift to renewables and prioritise implementing a more effective Net Zero strategy, to protect Britain from similar crises in the future.

More renewables under the Net Zero strategy is one of our best routes out of this crisis, as it provides us with valuable energy security in an increasingly insecure world.

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Net-zero has never been more important

CSR should be right at the top of your agenda this year.

The public and commercial sector are expecting businesses to be ever more rigorous about measuring their impact on the environment, and bringing in more measures to mitigate it – which is exactly where commercial solar panels come in.

Commercial solar panels provide a significant range of short and long-term benefits to your business, doing everything from helping you save money on your energy bills, to giving you more energy security against turbulent market hikes and troughs. Crucially though, when it comes to CSR, they serve as tangible and demonstrable evidence of your commitment to transforming your energy supply.

5 signs your business is a good fit for solar panels:

1.

Your business has available space

As a rule of thumb, just one square foot of space has the potential to produce about 15 watts of energy.

So basically, if you have large, free and unused areas (be it the roofing of your business or the surrounding land) these could be the perfect spaces for installing solar panels.

2.

Your locations get a lot of sunlight

On top of having available space, it's also important that these areas get a lot of sunlight.

Ideally these should be south-facing in the northern hemisphere, as this orientation will give the optimum and most direct amount of sunlight. You can of course still look to invest in solar panels if the areas you've earmarked aren't south-facing, but you should check they're not overlooked or in shadow from other structures, buildings or wildlife.

3.

You run an energy-intensive business

Solar panels can be a fantastic means of bringing such expenses down.

If your business operations are on a larger scale, particularly in areas like tech and manufacturing, the chances are your current energy consumption and energy costs are quite high.

4.

You'd benefit from solar security with your energy

Solar energy can help provide energy security.

...as as well as added peace of mind your business won't grind to a halt, if you're operating in a sector that heavily relies on electricity and where even the smallest downtime due to power cuts could be catastrophic.

5.

You want to improve your CSR

Corporate Social Responsibility.

Last but not least, a sure sign that solar panels could be right for your business is if you want to improve your Corporate Social Responsibility. Having solar panels is an incredibly effective means of showing your business is making a concerted effort to help fight climate change and is being mindful of its energy use.

National grid takes major step forward to decarbonising UK power

As part of the UK's Net Zero commitments, the government has already announced its plans to decarbonise the nation's power system by 2035.

A major development in these plans happened in February 2022: for the first time, **renewable generators have had the green light to provide stability services to the National Grid ESO**, which is the electricity system operator for Great Britain.

Starting from the 15th of February onwards, **wind**, **wave** and **solar generators** will now be able to offer **specific stability services** to the **National Grid**.

Up until now, these sorts of services have only been provided by conventional generators, such as hydrocarbon or nuclear plants. The change is the result of a formal change to the Grid Code, which is essentially the system that sets the specification for everything that connects to the National Grid.

Updates to the Grid Code aren't always especially newsworthy in themselves – the Grid is routinely updated to ensure that it's always responding effectively to new economic influences, and continually able to meet demand. However, this particular Grid Code update is a significant event in itself, given that it paves the way for a new market in stability services from renewable sources, and moves us a big step closer to successfully decarbonising our power system and facilitating our achievement of **Net Zero**.

The approval for green generators to stabilise the National Grid has been described as a 'breakthrough moment' by Tony Johnson, who led the project for the National Grid's ESO's markets team.

"It's the culmination of up to **10 years** of thinking and working with stakeholders to find the common ground between what equipment is capable of doing and what the system needs."

He said "it also ensures that as we transition **away** from **conventional fossil fuelled generation**, we can operate the grid securely and efficiently, which will ultimately **save consumers money**."

That's **exactly** where we can help here at Low Carbon Energy.

We see our role as supporting businesses in the journey to a more sustainable future and work them withthem to achieve their carbon and cost reduction goals.

To find out how we can help you, feel free to give us a call today on 01282 421 489.

Your business needs to find ways of

- Reducing energy consumption
- Improving energy efficiency
- Taking steps to offset emissions

As experts in the design, installation and maintenance of extensive solar-powered systems, we use the sun's energy to power your present and preserve your future.

To see how we can empower your business to reduce your carbon footprint, increase your efficiencies and achieve net-zero targets, just get in touch with one of our experts.

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