

**How to combat  
volatile grid  
energy costs and  
keep your net zero  
targets on track.**

*NET ZERO  
2035*



Powering  
Sustainable  
Business

[YLEMENERGY.COM](http://YLEMENERGY.COM)

# Feeling the power pinch?

The energy market is volatile and this is set to continue for the foreseeable future with fluctuating energy costs putting financial strain on businesses. To exacerbate this, UK companies across all sectors are under increasing pressure to reduce their carbon emissions under Government legislation to reach net zero.

**So, what can power intensive businesses do to ease their financial pain, while also making sure their net zero targets are still being met?**

In this eBook we will explore what it means for a business to be net zero and how to get on the right path to achieving that goal, as well as looking at how reaching net zero can greatly benefit your business.

We'll also cut through some of the jargon surrounding carbon reduction requirements, including getting to grips with scopes 1, 2 & 3 - and why large businesses should be preparing for the new wave of ESG reporting.

Lastly, and perhaps more importantly, we'll offer reliable, achievable, fully-funded solutions on how to significantly reduce your energy costs, increase power security and boost your ESG credentials.



# UK businesses raise concerns over the cost of net zero amid energy crisis



**“The greatest threat to our planet is the belief that someone else will save it.”**

**Robert Swan** - Historian, explorer and renewable energy advocate

The impact of climate change has become one of the most pressing issues facing humanity in the 21st Century and the transition to decarbonise the world is on.

For this reason alone, you would think that power intensive businesses are acting fast and leading the UK's transition to net zero. Right?

**Well, that's not quite the case...**

A recent survey by the Office for UK National Statistics revealed the proportion of businesses that reported taking no action to reduce their carbon emissions fell from just under a half (**46%**) in April 2021, to less than a third (**30%**) at the beginning of 2023.

**So why are many businesses failing to act when it comes to reducing emissions?**

## Net zero barriers

Research by the British Chambers of Commerce revealed that nine in ten UK businesses are concerned by the cost of funding the transition to net zero amid the cost of living crisis, and particularly a spike in rising energy prices.

Another study revealed that many UK businesses believe the current energy crisis will damage their progress towards reaching climate goals. **One in five** companies have been forced to de-prioritise work related to the transition to net zero.

Other net zero obstacles in relation to large businesses include: high up front adaptation costs; not knowing where or how to begin, lack of information and awareness on green technology and how it fits into wider infrastructure.

**Another major concern for decision makers was the lack of reliable information on how to transition to net zero.**

# What is net zero?

**It's no surprise that 'net zero' feels like the latest buzzword as we've seen a surge in government commitments and new sustainability legislation recently - ramping up the pressure even more on power intensive businesses.**

Net zero refers to the balance between the amount of greenhouse gases (GHG) that's produced and the amount that's removed from the atmosphere. Essentially, we reach net zero when the amount of CO<sub>2</sub> we add is no more than is taken away. It can be achieved through a combination of emission removal and reduction.



## Why is net zero so important?

**"We are the first generation to feel the effect of climate change and the last generation that can do something about it."**

**Barack Obama** - Former U.S President advocate

The most commonly measured GHG is carbon dioxide, which is at a concentration of **418 parts per million** (ppm) - its highest level in human history. To put this into context, CO<sub>2</sub> is now **50% higher** than it was before the Industrial Revolution.

## Net zero by 2050

In June 2019, the UK government legislated a net zero target by 2050. However, in 2021, the push to reduce carbon was cranked up a level when the government set two additional landmark commitments to run a net zero energy system and **reduce emissions by 78% by 2035.**

## A cautionary note: greenwashing can damage a company's reputation.

In short, greenwashing is when a company purports to be environmentally conscious but isn't actually making any notable sustainability efforts. Over the years, many global brands have tried and failed to overrepresent their green credentials through false claims, vague terms and nifty advertising.

To this day, some UK energy providers are accused of greenwashing by putting out false signals, distracting consumers from the realities of their practices. Marketing campaigns create the impression that they are pushing forward with a rapid and broad transition to low carbon energy but these claims can often be misleading.

More alarmingly, this type of greenwashing can be inadvertently passed down to large scale business consumers of energy in power intensive industries.



YLEM Energy's solar solution reduces CO<sub>2</sub> emissions by 62 tonnes annually, **equivalent to 7.8 million smart phone charges or 143 barrels of oil.**



YLEM Energy's solar solution will reduce CO<sub>2</sub> emissions by 475 tonnes annually, **equivalent to 60 homes energy usage for 1 year.**



YLEM Energy has helped Unilever save 8,000 tonnes per year, **equivalent to planting 11,882 acres of forest.**

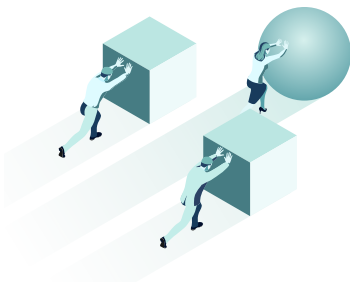
# How achieving net zero can benefit your business

Aside from helping improve the world's environment, adopting net zero strategies will help your business grow, save money and boost resilience. Research by Deloitte has also shown that **32%** of UK consumers would be prepared to pay more for goods and services if it ensured brands reduced their carbon footprint.

**Re-evaluating your strategy and implementing a more carbon neutral plan may therefore benefit your company. Let's look at 4 ways achieving net zero can help a business to thrive in a sustainable future:**

## Reducing costs

Swapping your energy to a renewable source will help reduce your company's energy bills. Not only that, by examining how energy is used across your whole site may lead to a reduction in consumption and maximise efficiency.



## Competitive edge

A survey of more than **1000 businesses** by the British Chambers of Commerce found that only **11%** of respondents are measuring their carbon footprint. The study suggests that taking action to reduce your carbon footprint may give you a competitive advantage over other businesses with poor green credentials.

## Customer retention

Recent data from 'Time Finance' revealed that **82%** of customers believe it is important for a business to have green credentials. In the same study, **70%** of respondents also claim that their sustainability commitment influences their decision to buy from a business.



## Attracting Investment and stakeholder engagement

Becoming a net zero business may be attractive for investors seeking companies with a long-term sustainability strategy. Likewise, it sends a powerful message to eco-conscious stakeholders, showcasing a business's commitment to sustainable practices and environmental stewardship.

# What are scopes 1, 2 and 3? A bitesize guide

## Measuring the impact of Greenhouse Gases

When any large business begins measuring its environmental impact, they often ask what the difference is between scope 1, 2 and 3 emissions. Put simply, scopes are a way of categorising different types of emissions a business emits in its own operations and in its wider value chain - such as suppliers and customers.

**In order for any UK company to be able to reduce its carbon emissions, they need to understand and measure where they are sourced from in the first place.**



### Scope 1

**Direct emissions** from sources owned or controlled by an organisation are included in this category, such as boilers, air conditioning, or vehicle fleets. To cut scope 1 emissions, businesses might adopt electric vehicles.



### Scope 2

**40%** of global GHG arises from energy generation, with businesses contributing half. The carbon from purchased electricity is deemed indirect. Companies can cut scope 2 emissions by **harnessing onsite renewable energy**.



### Scope 3

Scope 3 emissions, accounting for about **70%** of many large businesses' carbon footprint, are tricky to gauge. They encompass **indirect emissions** from the broader value chain, including purchased goods, sold product usage, waste disposal, and business travel.

## Why measure scope emissions?

Carbon emissions are responsible for **81%** of our planet's GHGs and businesses grossly contribute to this figure. While carbon accounting may seem daunting, it is currently, and will continue to be, high on the agenda in business meeting rooms around the UK - across all sectors - for many years to come.



**"Companies that persist in treating climate change solely as a corporate responsibility issue rather than a business problem, will risk the greatest consequences."**

**Michael E Porter & Forest L Reinhardt**

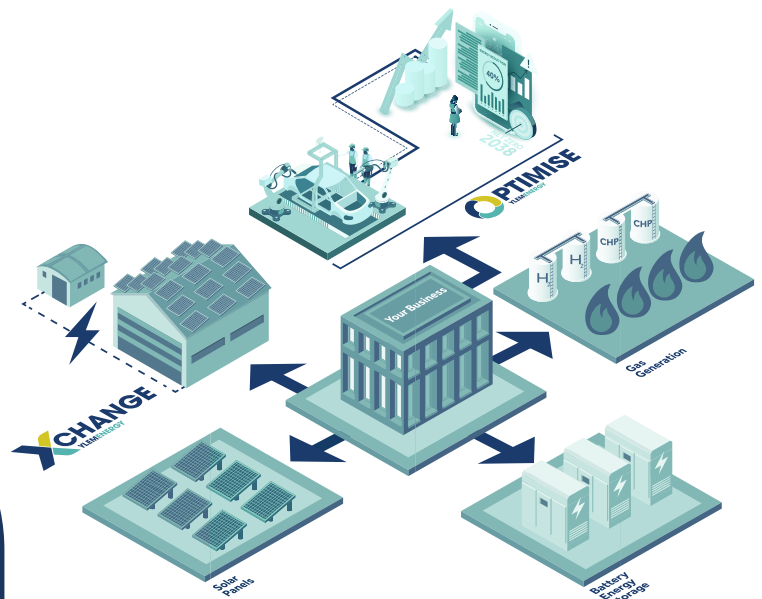
# Preparing for the next wave of ESG reporting

## Corporate Sustainability Reporting Directive (CSRD)

CSRD was created by European Parliament at the end of 2022 and it refers to the practice of both SME's and large businesses disclosing information on their environmental, social and governance performance in annual company reports.

The new directive seeks to ensure that businesses report on ESG performance in a comparable, consistent, and reliable manner, thereby increasing transparency and accountability. CSRD will be phased in between 2023 and 2026.

Secondly, investors are increasingly seeking businesses that are committed to sustainability and solid ESG credentials. Companies that are not transparent on sustainability issues may find it more difficult to access finance as investors become more selective in their investment decisions.



### Which companies have to comply?

- All listed companies on the EU regulated market.
- All large companies exceeding two of the three of the following criteria: more than **250 employees**, a net turnover of more than **€40 million** and over **€20 million** total assets.
- UK companies with a **€150 million net** turn over in the EU, and with at least one subsidiary branch in the union.

### If it's an EU directive how will CSRD affect UK businesses?

The implications for UK companies are potentially significant. Firstly, CSRD aims to harmonise ESG reporting across the whole of Europe. This means UK businesses are likely to face increased scrutiny and pressure to improve ESG performance.

### Onsite energy generation is at the heart of ESG

Innovative renewable energy technologies are at the heart of the UK's efforts to reduce GHG's in line with climate science and limit global warming to **1.5 degrees centigrade by 2050**.

Onsite energy generation is an ideal renewable solution as it enables the seamless integration of green energy sources, such as solar PV and hydrogen-ready gas-fuelled power generation.

Every onsite energy project that is built makes a difference as it will create positive impacts on climate change through emissions reduction, thereby significantly boosting a businesses ESG credentials.

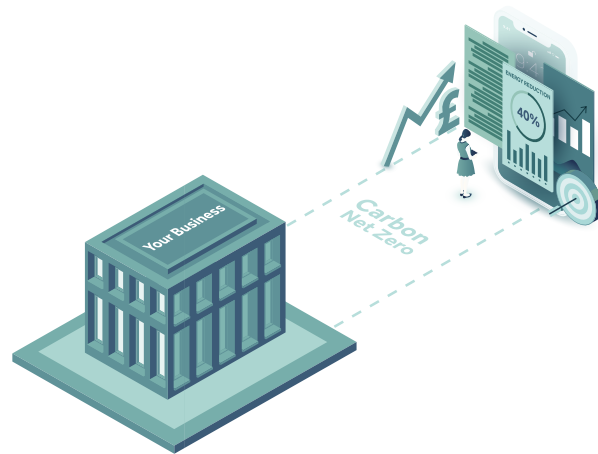
# How YLEM Energy can help your business

## Reducing carbon and cutting energy costs through onsite power generation for over 30 years.

At YLEM Energy we fully understand the importance of helping large businesses to significantly reduce energy costs and achieve net zero targets, whilst increasing long-term energy security and resilience.

As a UK based industry-leader in onsite energy generation solutions, we specialise in designing, building, operating, managing and maintaining innovative systems - at absolutely **ZERO cost** to our clients.

More than **one in three** businesses now produce at least some of their own electricity according to a report from The Economist. Here's why...



## Guaranteed cost reductions

Our generation solutions create significant reductions to annual energy costs and benefit profitability for up to **25 years**. On average, we save businesses **£227K** annually across many sectors ranging from manufacturing to food and beverage.

## Driving your business towards net zero

By utilising bespoke onsite generation systems, businesses can drastically reduce greenhouse gas emissions. YLEM Energy's solutions have collectively saved businesses over **1.1 million tonnes** of CO<sub>2</sub>. That's a footprint saving equivalent to a large petrol car driving around the earth's circumference 16,000 times.

## Energy security and grid resilience

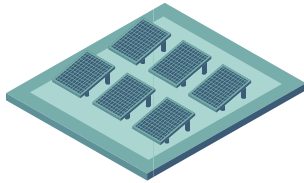
Amidst the increasing energy demands of the UK, coupled with grid instability and extreme weather events, ensuring dependable and secure energy sources has become exceedingly crucial. The adoption of onsite generation plays a pivotal role in maintaining uninterrupted operations and serves as a safeguard against critical processes. Additionally, embracing onsite generation alleviates stress on the grid, thereby enhancing the overall reliability of grid-derived energy supply.

## Boosting ESG objectives

A business generating its own renewable energy can demonstrate its commitment to sustainability and help to position itself for long-term success in an increasingly ESG focused business environment.



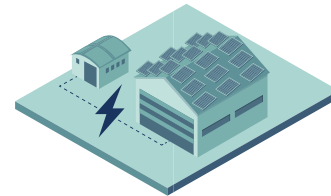
# A whistle-stop guide to YLEM Energy's onsite generation solutions



## Solar PV

Transform your business into a source of renewable onsite energy generation with one of the UK's fastest growing green energy technologies - Solar PhotoVoltaic (PV). Installing a fully-integrated solar solution allows businesses to generate cheaper, much more efficient and secure energy than grid-derived power.

[\*\*Discover more and how much your business could save\*\*](#)



## YLEM Energy Xchange

Unlock further value from unused roof or ground real estate by taking solar power generation to the next level. Xchange allows you to generate more energy than you need. You then have the option of allowing YLEM Energy to purchase any excess power you produce. Or you can transfer it to one or more of your other sites.

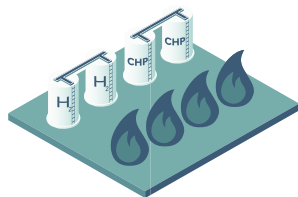
[\*\*Watch our video for an insight into YLEM Energy Xchange\*\*](#)



## YLEM Energy Optimise

Our complete intelligent management system allows your business to control, monitor and reduce your energy usage in real time from anywhere across the UK through user-friendly live system graphics, dashboards and reports. YLEM Energy Optimise gives you complete visibility and control.

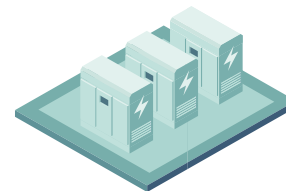
[\*\*Learn more about energy management made simple\*\*](#)



## Gas Power Generation

As energy prices fluctuate, gas-fueled electricity remains pivotal in the energy market. These systems, ready for hydrogen integration, emphasise high efficiency and can be sited internally or externally, fitting seamlessly into existing infrastructure.

[\*\*Learn about the benefits of onsite gas power generation\*\*](#)



## Battery Energy Storage

Enhance the benefits of onsite generation with a Battery Energy Storage System. (BESS) Batteries promote energy security and resilience as they can be used to provide back up power and improve overall grid stability. Storage systems are highly efficient and put you firmly in control of your energy costs.

[\*\*Read more about YLEM Energy's BESS\*\*](#)

# Bespoke generation solutions funded entirely by YLEM Energy

YLEM Energy will identify the best generation solution for your business - from the initial outline through to design and installation. Once operational your system will be run and maintained by our expert engineers.



## Dynamic Power Purchase Agreement (DPPA)

Our DPPA truly is a win-win solution as it allows businesses to partner with us to reduce their electricity bills with no upfront CAPEX or OPEX costs.

The YLEM Energy team has helped FUND more than **£300 million** worth of energy generation assets on more than **600 projects** globally.

## 24/7 Operations and Maintenance Services

Minimise downtime and maximise asset efficiency through our industry-leading O&M services, completely tailored to your needs. This includes real-time monitoring and detailed historic data to pre-empt any future issues.

## Supporting UK-wide asset owners

We own and operate a fleet of gas engines, from AD plants to peaking sites, and provide support for many leading manufacturers. If you're an asset owner seeking O&M services, including battery and solar, please get in touch.

“**81% of businesses generating onsite energy plan to increase capacity**”

**Surely, such a staggeringly high figure, is testament to the many benefits onsite energy generation brings to both a business and to the planet.**

The answer to more affordable, more secure, renewable energy is quite literally staring many companies in the face.

Could these same businesses become our power plants of the future? Yes they can... and they probably will!



# What our clients say:



**“The YLEM Energy portal provides us with a wider overview and understanding of how we use our energy; we are able to identify patterns that allow us to have more control over our energy usage. It provides us with the relevant information we need to make positive changes in how we reduce our energy consumption and carbon footprint.”**



**Andrew Murphy** - Site Utilities Engineer



**“Working with YLEM Energy to implement this solar PV onsite energy generation solution is a key step and one that forms part of our company’s long-term strategy to transition to a net zero carbon position. YLEM Energy’s expertise and ability to liaise with third parties such as the Distribution Network Operator (DNO) and handle planning applications ensured the system was installed successfully.”**



**John Droog** - Chief Executive



**“Partnering with YLEM Energy to implement a Solar PV solution will enable further significant carbon reductions to be made and reduce the business’ reliance on sourcing power from the National Grid, delivering stable pricing and significant cost reductions.”**



**Dean Barlow** - Operations Director

[Read more](#) on how we support power intensive industries



**Guaranteed cost reductions with our Dynamic Power Purchase Agreement**



**Start the journey to net zero hit short term targets and meet long term goals**



**Fully funded solutions no additional costs**

**Find out how much you could save on your journey to net zero. Get in touch today for a no-obligation chat. Let us put the power back in your hands.**



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