Energy Sector

UK Market Guide

Prepared for Saxony Trade and Invest

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Trade & Invest

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Section 1 UK Energy Overview

UK Energy

At a Glance

UK Oil & Gas Revenue

£9 billion

Production revenue 2022

Energy Annual Growth Rate

542.86%

% increase from 2022-2023

UK Total Energy Value

£97.5 billion

A 0.5% increase from 2021 until 2022

UK Energy Industry Drivers

The UK energy industry is a complex and multifaceted sector encompassing various sources of energy production, including **fossil fuels, renewable energy, nuclear power and emerging technologies.** The UK's energy mix has been evolving over the years with a **significant shift towards renewable energy sources such as wind, solar and biomass**. However, fossil fuels still play a significant role in the energy mix, including natural gas and oil.

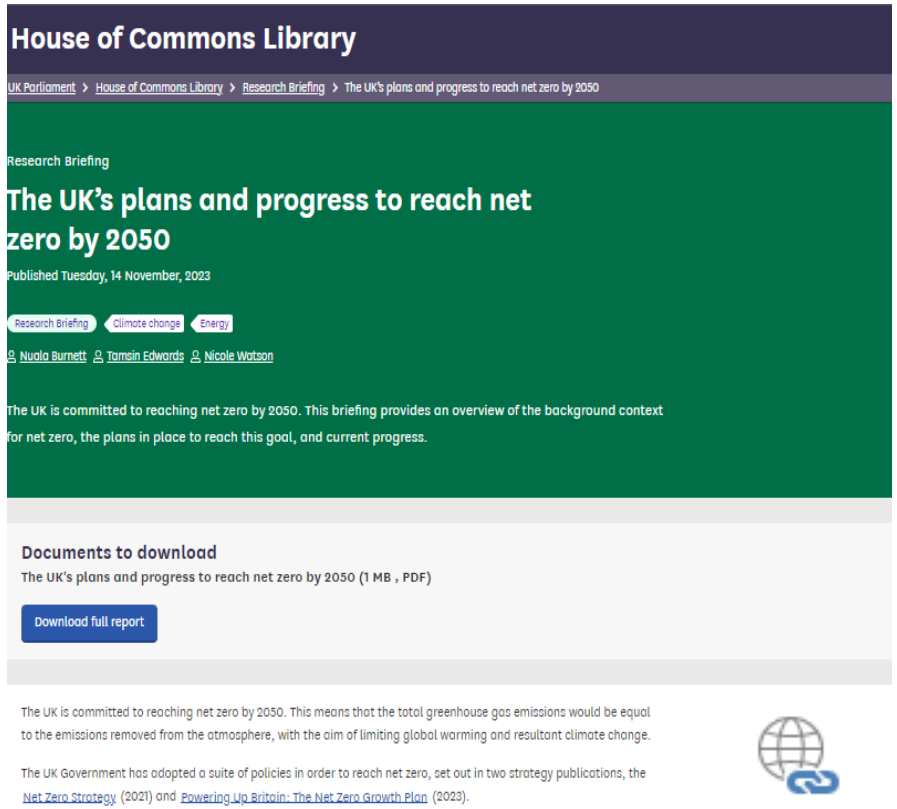
The UK has been investing heavily in renewable energy infrastructure particularly offshore and wind power. The country is a global leader in offshore wind capacity, with numerous offshore wind farms contributing to the renewable energy supply.

Addressing climate change and reducing carbon emissions are major drivers shaping the UK energy industry. The government has set ambitious targets to achieve net-zero carbon emissions by 2050 driving investment.

The Energy Sector is one of the UK's priority sectors, pushing global innovative energy solutions

UK Energy Trends

Trends/Recent News



House of Commons Library

UK Parliament › House of Commons Library › Research Briefing › The UK's plans and progress to reach net zero by 2050

Research Briefing

The UK's plans and progress to reach net zero by 2050

Published Tuesday, 14 November, 2023

Research Briefing | Climate change | Energy

Nuala Burnett, Tamsin Edwards, Nicole Watson

The UK is committed to reaching net zero by 2050. This briefing provides an overview of the background context for net zero, the plans in place to reach this goal, and current progress.

Documents to download

The UK's plans and progress to reach net zero by 2050 (1 MB , PDF)

Download full report

The UK is committed to reaching net zero by 2050. This means that the total greenhouse gas emissions would be equal to the emissions removed from the atmosphere, with the aim of limiting global warming and resultant climate change.

The UK Government has adopted a suite of policies in order to reach net zero, set out in two strategy publications, the Net Zero Strategy (2021) and Powering Up Britain: The Net Zero Growth Plan (2023).

The UK has seen significant energy growth in renewable energy generation, particularly from wind and solar sources. The UK is a global leader in offshore wind capacity.

The UK has made progress towards decarbonizing its electricity grid with a growing share of low-carbon generation from renewables, nuclear and interconnectors.

With the growing penetration of intermittent renewable energy sources, energy storage and flexibility have become increasingly important to balance supply and demand on the grid.

The adoption of EV is accelerating in the UK supported by govt incentives, improving technology and a growing charging infrastructure. The transition to electric mobility is expected to increase.

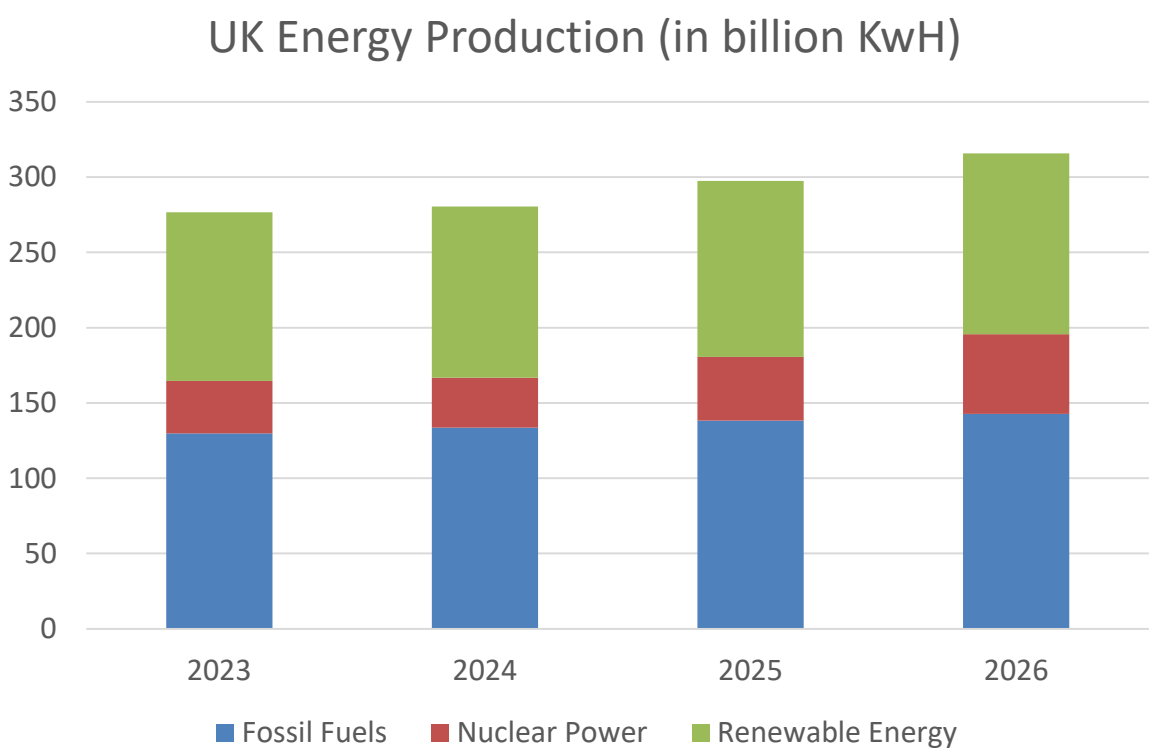
Improving energy efficiency remains a priority for the UK, driven by regulatory requirements, climate change targets and cost savings. Initiatives such as energy efficiency standards for buildings etc aim to reduce emissions.

The UK has set ambitious targets to achieve net-zero carbon emissions by 2050 driving policy developments, investments and innovation across the energy sector.

The UK is pushing to be a global leader in Net Zero ambitions

UK Energy Trends

Trends/Recent News



This graph shows the UK energy production in billion KwH from 2023 – 2026. There is a Compound Annual Growth Rate (CAGR) of 4.02% from 2024 – 2028.

Overall emission intensity in the UK is projected to amount to 245.20gCO2/kWh in 2024.

As you can see, energy production is expected to grow and one of the key areas of growth will be renewable energy and over the coming years there will be a shift to completely reduce carbon emissions.

UK Energy

Opportunities

Renewable Energy Development

- There are significant opportunities for investment and growth in renewable energy projects, particularly in offshore wind, solar power and biomass. The UK has abundant renewable energy resources and a supportive policy framework making it an attractive market for renewable energy developers and investors.

Electric Vehicles (EVs) & Infrastructure

- The adoption of electric vehicles is accelerating in the UK, creating opportunities for investment in EV charging infrastructure, battery manufacturing and smart charging solutions. There is potential for innovation in vehicle-to-grid (V2G) technology and electric mobility services.

Energy Efficiency & Retrofitting

- Improving energy efficiency in buildings, industries and transportation systems presents opportunities for businesses to reduce energy consumption, lower operating costs and reduce carbon emissions. Retrofitting existing buildings and infrastructure with energy-efficient technologies and solutions is a key focus area.

Smart Grid & Digitalisation

- Digital technologies and smart grid solutions are transforming the energy sector, enabling more efficient energy management, grid optimisation and integration of renewable energy sources. Opportunities exist for investment in smart meters, grid automation and data analytics platforms.

UK Energy

Opportunities

Key Low Carbon Sectors

Net Zero presents cross-cutting opportunities across the whole of the economy and the UK is among the most exciting countries in the world for green industries.

The recent Powering Up Britain plan sets out how the government will continue to deliver on net zero and energy security commitments by promoting and funding key sectors.

These sectors offer unique opportunities for you to help the UK achieve its Net Zero target:

Power
- Offshore wind
- Nuclear
- Green energy generation and networks

Fuel Supply and Hydrogen
- Hydrogen

Transport
- Advanced Automotive Technology
- Battery Technology and Energy storage

Industry
- CCUS (Carbon Capture, Utilisation and Storage)
- Chemicals

Heat and Buildings
- Heat pumps
- Heat networks
- Construction

Cross-Cutting Action
- Green Finance
- Freeports and regional offers

Section 2 Key Players

Major Players in the Market

British Gas

www.britishgas.co.uk

HQ: Windsor, UK

Intl locations: N/A

British Gas is one of the largest energy suppliers in the UK, providing gas and electricity to residential and business customers.

EDF ENERGY

www.edfenergy.com

HQ: London, UK

Intl locations: Americas, EMEA inc. UK, APAC

EDF Energy is one of the UK's largest energy suppliers and operates several nuclear power plants, as well as renewable energy assets including wind farms and solar parks.

RWE

https://uk.rwe.com/

HQ: Essen, Germany

Intl locations: Americas, EMEA inc. UK, APAC

RWE Renewables is a leading developer and operator of renewable energy projects in the UK, with a focus on offshore and onshore wind farms.

SIEMENS

https://www.siemens.com/uk/en.html

HQ: Munich, Germany

Intl locations: Americas, EMEA, APAC, Africa

Siemens is a global technology company that provides a wide range of energy solutions, including power generation, transmission, and distribution systems, as well as smart grid and energy management technologies.

Section 3 Trade Shows

UK Energy

Trade Shows (order by date)

Trade Show	Location & Date	About
Solar & Storage Live London 2024	London, UK 29th – 30rd April, 2024	Solar & Storage Live is an annual event focused on solar power generation and energy storage technologies. The event brings together industry professionals, policymakers, and technology providers to explore the latest innovations and trends in solar and storage solutions.
All-Energy Exhibition & Conference	Glasgow, UK 15th – 16th May, 2024	All-Energy is the UK's largest renewable energy event, covering all aspects of renewable energy generation, including wind, solar, hydro, bioenergy, and energy storage. The event features exhibitors, conference sessions, and networking opportunities for industry professionals.
Utility Week Live	Birmingham, UK 21st – 22nd May, 2024	Utility Week Live is an annual event focusing on the water, gas, and electricity sectors. It brings together utilities, regulators, suppliers, and technology providers to showcase innovations, share best practices, and discuss the challenges and opportunities facing the industry.
The Energy Management Exhibition	London, UK 20th – 21st November, 2024	EMEX is a leading event for energy management professionals, featuring exhibitors, seminars, and workshops covering topics such as energy efficiency, carbon reduction, and renewable energy solutions for businesses and organizations.

Section 4 Resources

UK Energy

Key Associations

Trade Association	About
Energy UK	Energy UK is the trade association for the UK energy industry, representing suppliers, generators, and other stakeholders across the energy sector. It works to promote a sustainable and competitive energy market, advocate for policy and regulatory changes, and engage with stakeholders on industry issues.
RenewableUK	RenewableUK is the trade association for the UK renewable energy sector, focusing on wind, wave, and tidal energy. It represents companies involved in renewable energy generation, development, and supply chain, advocating for policy support and promoting the growth of renewable energy in the UK.
UK Onshore Oil and Gas	UKOOG is the trade body representing the onshore oil and gas industry in the UK. It works to promote the safe and responsible development of onshore oil and gas resources, engage with stakeholders, and provide information and guidance on industry practices.
Oil and gas UK	Oil & Gas UK is the trade association for the UK offshore oil and gas industry, representing operators, contractors, and suppliers in the sector. It advocates for the interests of the UK oil and gas industry, provides industry insights and analysis, and promotes collaboration and best practices.
Scottish Renewables	Scottish Renewables is the trade association for the renewable energy sector in Scotland, representing companies involved in wind, solar, hydro, and marine energy. It works to promote the growth of renewable energy in Scotland, advocate for supportive policies, and provide industry insights and analysis.

Section 5 Routes to Market

Key Potential Routes to Market

Various Options Dependent on Internationalization Plan

Saxon Companies

- Boots on the Ground → Staff in the UK (Invest) Joint Venture
- Partnership → Distributors etc.
- Direct Sales → Direct to retailers E-Commerce Sales

Risk/ Cost

Multiple factors impact the route to market including opportunities, barriers, but most importantly risk and cost verses reward. Each Saxon company has specific needs and thus, every route to market must be tailored within your own internationalization plan. The above is a broad guide to some of the options available.

Overview of each Route to Market

Pros & Cons

DIRECT TO END USER

PROS

- Absolute control over sales and marketing activities
- Greater market as no commission or fees to third parties

CONS

- No in-market presence which makes it harder to respond to changing trends
- Required to build own network
- Learning curve to understand new culture
- Potential language barriers
- No awareness of upcoming projects in the pipeline
- Travel and time costs for senior staff to build brand awareness

DISTRIBUTOR

PROS

- Distributors can provide access to new markets and customers
- Cover multiple target industries
- Distributors complementary product lines offer greater opportunities for system or bundling strategies
- Partner on the ground proactively selling products
- Country cultural alignment and language support

CONS

- Product can get lost in a catalogue of options
- Cultural fit is hard to find
- Commission fees
- Less control of sales and marketing/ branding activities than direct sales

BOOTS ON THE GROUND

PROS

- On the ground staff culturally aligned to the consumer making sales and marketing campaigns potentially easier
- Easier to respond to changing trends and cultural barriers
- Complete ownership of entire operation in-market (unless done by joint venture)

CONS

- Significant cost and risk element depending on extent of operation e.g. production
- Difficulty aligning culture in-market to HQ
- May require repeat visits from Senior Saxon based staff to mobilise

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