

MONTHLY ZCA CLEANTECH NEWS



The Cleantech Insight You Need

September 2026

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Editor's note

August revealed that as the adoption of artificial intelligence accelerates new environmental impacts are emerging. Recent research suggests that AI can be used to optimise fossil fuel production, creating 'enabled-emissions' which may weaken some of the climate gains achieved by renewables. Therefore, as AI expands policymakers and industry alike must ensure that the technology will support and not undermine climate objectives.

This month, we also explore how greater adoption of clean energy technologies could help UK manufacturers unlock billions in energy savings, strengthening competitiveness while reducing emissions. We highlight new initiatives aimed at addressing skills shortages across the energy and infrastructure sectors, alongside the expansion of circular economy services to tackle growing e-waste challenges, and new developments in carbon removal technology.

As we continue the countdown to the **Cleantech Awards 2026**, we look forward to celebrating the innovators and organisations turning ambitious ideas into real-world impact across the cleantech sector. [Entries are now open, and we encourage all eligible organisations to submit their applications.](#)

AI BOOST TO FOSSIL FUEL PRODUCTIVITY OUTWEIGHS CLIMATE GAINS FROM RENEWABLES

New research has revealed the unseen climate impact of AI, with the technology found to be responsible for so-called 'enabled emissions'.



According to the study, emissions enabled by AI-driven fossil fuel productivity gains outweigh the emissions avoided through AI applications in renewable energy, even under scenarios where both technologies are adopted in parallel.

These additional greenhouse gas emissions are the result of oil and gas companies using AI to enhance fossil fuel productivity across the value chain. Examples include AI systems that optimise drilling operations, improve reservoir modelling, predict equipment failures, reduce downtime and increase recovery rates from existing oil and gas fields.

Looking at modelling scenarios, AI is enabling between 0.47 and 1.8 gigatonnes of CO₂ annually (equivalent to 1.2- 4.8% of 2024 global energy-related emissions).

CLEANTECH INNOVATION SPOTLIGHT

Environment Agency trial cuts carbon by 20%:

UK-based firm Material Evolution has helped cut carbon by 20% in a new trial with the Environment Agency's Decarbonisation Technology Accelerator and RPC Contracts. With concrete accounting for as much as 25% of the Environment Agency's embodied carbon footprint, it is a priority area in the organisation's decarbonisation efforts. The trial demonstrated how using MevoXL, a concrete admixture, can reduce that impact without compromising on strength and performance.



GSMA EXPANDS CIRCULAR ECONOMY PUSH WITH NEW E-WASTE REDUCTION SERVICES



GSMA Industry Services has announced the launch of its new circularity offering designed to help mobile operators extend the life of devices, reduce e-waste, and recover value from existing assets.

The new product has been created in partnership with Closing the Loop (whose 'One for One' service links one new mobile device sold by an operator, to the collection and responsible recycling of one end-of-life device), and RGX,

an online marketplace for enterprise asset disposition. The initiative is a welcome step in tackling circularity within the industry, given that mobile phones are a major contributor to global e-waste (electronic waste), in fact, an estimated 5.3 billion devices were thrown away in 2022 alone.

£5M SCHEME TO TACKLE SKILLS SHORTAGES IN ENERGY & INFRASTRUCTURE

The National Grid has announced a new £5 million (\$6.73 million) 'Power Within Employability Fund'. The scheme, which is set to start next year, aims to support around 1,000 young people annually, with approximately 5,000 expected to benefit over its lifetime.

The fund will help young people to develop the skills, qualifications, and confidence needed to access long-term career opportunities, including those within the energy and infrastructure sectors.

The initiative is intended to help meet the growing demand for skilled workers in sectors such as clean energy, construction, and engineering, as well as provide the workforce needed to deliver the infrastructure projects that will help modernise the country. According to recent analysis by ZCA, the UK's energy and mining sector is to see a shortfall of almost 50,000 green skilled workers by the end of the decade, putting the green transition at significant risk.



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CLEAN ENERGY DIVIDEND: DITCHING GAS AND SWITCHING TO CLEAN ENERGY COULD SAVE UK MANUFACTURERS £2.1 BILLION BY 2035



UK manufacturers could unlock £2.1 billion in energy savings by replacing gas with clean energy technologies, according to new modelling from E.ON. The company argues that greater adoption of electrification, energy efficiency and low-carbon technologies could turn energy from a cost burden into a source of competitive advantage. UK manufacturing currently employs over 2.1 million people and contributes around £197 billion to the

economy. However, the sector is highly exposed to energy costs, consuming 82 TWh of electricity and 193 TWh of gas each year. For context, the UK's total electricity consumption was 280 TWh in 2024. With output forecast to grow by 2035, E.ON says action on energy efficiency will be increasingly important to protect margins and support investment.

Cleantech Awards 2026

The ZCA is proud to launch the **third annual Cleantech Awards 2026**—celebrating the innovators, disruptors, and pioneers driving the clean technology revolution.

Are you transforming the future of food, energy, water, transport or industry? This is your chance to be recognised among the leading climate-tech changemakers. [**Submit your entry here**](#)

Jet fuel made from tropical fruit

In Brazil's Minas Gerais state, a new project has received \$3 billion in funding to produce Sustainable Aviation Fuel (SAF) using a tropical fruit. The initiative focuses on the macauba palm tree which is indigenous to South America and grows in semi-arid locations. Energy and biofuels company Acelen Renováveis plans to cultivate 144,000 hectares of land, an area larger than the city of Los Angeles. According to the company, macauba can deliver seven to 10 times more oil per hectare than soybeans. By 2030, a specialised biorefinery in Bahia, Brazil, is projected produce 20,000 barrels of SAF every day, significantly increasing the global supply of the fuel which sat at 41,000 barrels a day in 2025.

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CREW CARBON & MICROSOFT TEAM UP TO REMOVE CARBON FROM WASTEWATER:

CREW Carbon has signed an offtake agreement with Microsoft for the delivery of up to 23,602 carbon removal units (CRUs) from the company's patented wastewater alkalinity enhancement (WAE) technology. It adds to CREW's existing long-term agreements with other major corporations including JP Morgan, Google, Autodesk, and Stripe, bringing CREW's total committed carbon removal to \$40M+. CREW's patented technology, which was developed at and backed by Yale University, integrates into existing wastewater infrastructure to improve treatment performance and permanently remove carbon dioxide, delivering the world's first and only verified carbon removals from wastewater alkalinity enhancement to date.



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