

MONTHLY ZCA CLEANTECH NEWS



The Cleantech Insight You Need

July 2026

Vol. 18

Editor's note

June saw several major cleantech advancements, including the opening of a new floating solar installation in the UK, alongside Mazda's trial of in-car carbon capture and storage. Other major stories included the news that demand for biofuels are set to soar by 2030, putting food security at major risk.

As we enter July keep an eye out for news of ZCA's upcoming research into the EV and charging market, the third edition of our market-leading report will be critical reading for those interested in, or operating within, the electric vehicles space.

We've moved:

ZCA has moved! You can now find us at www.zca.solutions, and for any inquiries send us a message: hello@zca.solutions

EUROPE'S 'URBAN MINE' OF CRITICAL RAW MATERIALS

Europe is sitting on an urban mine of precious metals and minerals according to data from the FutuRaM project. By 2050, waste recovery systems could help Europe reclaim between 4.1 and 5.7 million tonnes of CRMs (Critical Raw Materials). The research found that in 2022, 5.2 million tonnes of CRMs embedded in products were placed on the market, compared to 2.1 million tonnes embedded in waste, and 1.4 million tonnes recovered. This highlights both the scale of material in use, and the gap between consumption and recovery.

By 2050, CRMs in products placed on the market could rise to between 8.4-12.2 million tonnes annually, with waste generation reaching between 5.2-6.4 million tonnes. In contrast, recovery is forecast to reach between 4.7-5.7 million tonnes, underscoring the growing strategic importance of recycling systems.

CRMs include many important materials such as lithium, cobalt, and rare earth elements. Despite being critical components in modern technologies such as smartphones and batteries, they are largely lost during collection and waste processing.

Mazda's on-board carbon capture:

Mazda has showcased its onboard carbon dioxide (CO₂) capture system during Round 3 of the Super Taikyu Series. During the test, Mazda demonstrated CO₂ capture and storage in a vehicle powered by Hydrotreated Vegetable Oil (HVO). The Mazda Spirit Racing 3 Future Concept race car contained a Zeolite absorption unit, the material readily releases CO₂ when heated, enabling the captured CO₂ to then be released and compressed into a storage tank using the exhaust heat generated during driving. Mazda unveiled 'Mazda Mobile Carbon Capture' at last year's Japan Mobility Show 2025, as the corporation looks to support efforts to reduce net CO₂ emissions by 2035.

CLEANTECH INNOVATION SPOTLIGHT

NEW FPV SOLAR ARRAY SET TO POWER CHESHIRE QUARRY, IN BOOST TO UK'S FLOATING SOLAR AMBITIONS



A new floating solar project has come online in Cheshire, England. Commissioned by Bathgate Silica Sand, the 400kW floating photovoltaic (FPV) project has been completed by Scottish firm Nova Innovation and developed in partnership with engineering consultancy RSK. The project was awarded as an engineering, procurement and construction (EPC) contract in December 2025,

with first power delivered in May 2026. Nova previously developed the world's first offshore tidal array in Shetland and also delivered Scotland's first FPV project.

The new array, which is made up of 650 floating solar panels on North Arclid Lake, marks a significant milestone for Bathgate Silica Sand's ambition to decarbonise its century-old quarry operations, as well as to reduce its energy bills.

BIOFUEL DEMAND SET TO SOAR BY 2030, CREATING RISK OF GLOBAL FOOD SHORTAGES

T&E (Transport & Environment) has warned that biofuel demand is set to soar by 2030, creating a strong risk of global food shortages. The researchers claim that high oil prices resulting from the Middle East crisis are accelerating the global biofuels push, along with increasingly ambitious biofuel targets put in place by governments. When taken together, this risks putting further strain on already tight global food and fertiliser markets. The researchers claim that, in response to the current crisis, governments are 'playing a dangerous game'. Big agri-food powers such as the US, Brazil, India, and Indonesia are ramping up their biofuel targets at the risk of further increasing prices for agricultural commodities and redirecting resources from plates to fuel tanks. T&E forecast that if proposed mandates are fully implemented then global biofuel demand could surge by 70% by 2030. They note that to meet 20% of global fuel demand with crop-based biofuels, there would need to be a five-fold increase in consumption, potentially requiring agricultural land the size of South Africa



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NEW FRAMEWORK LAUNCHED TO MANAGE AND REDUCE CARBON EMISSIONS IN THE BUILT ENVIRONMENT

The UK Green Building Council (UKGBC) has launched a new framework designed to support the reduction of carbon emissions in the built environment. The Whole Life Carbon (WLC) Framework aims to support implementing low-carbon building's lifecycle, while also helping to guide projects toward net-zero aligned outcomes.



The free resource offers practical guidance as to how organisations can minimise whole life carbon emissions within the built environment, from the project's inception through to end-of-life. Whole life carbon is the sum of all greenhouse gas emissions associated with a building, from material extraction and construction, the use of the building, and finally to its demolition and disposal. According to the UKGBC, the framework is designed to be approachable and accessible.

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