Sustainability Bulletin

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Electric Vehicles Emerging as Home Energy Storage Solutions

Electric vehicles equipped with bidirectional charging can store at least 10 kWh of usable electricity, allowing them to send power back to homes during peak demand or outages. Reuters notes that this technology, known as vehicle to home or vehicle to grid, is gaining momentum as energy systems become more decentralised.

By turning EVs into mobile batteries, households can lower electricity costs, support grid stability, and improve resilience during power disruptions. This approach is especially relevant in regions with high levels of renewable energy, where balancing supply and demand is becoming increasingly complex.

Automakers and utilities are expanding pilot projects across Europe, Asia, and North America to integrate EVs into energy networks. As adoption increases, experts say this dual use of vehicles could play an important role in optimising energy use and accelerating the shift to smarter, more flexible electricity systems.

Why the Strait of Hormuz Blockade Should Be a Boost for Europe's Green Industry

About 20% of global oil supply passes through the Strait of Hormuz, making it one of the most critical energy chokepoints in the world. According to Reuters, any disruption to this route could trigger sharp increases in energy prices and reinforce Europe's efforts to reduce reliance on imported fossil fuels.

Rising volatility in oil and gas prices is pushing policymakers to accelerate investment in renewable energy, electrification, and domestic clean technologies. Expanding wind, solar, and hydrogen capacity is now seen not only as a climate priority but also as a strategic response to energy security risks.

Analysts note that sustained price pressure could make clean energy more competitive than fossil fuels, particularly in sectors like power generation and transport. While short term disruptions may strain economies, they could also strengthen the case for a faster structural shift toward low carbon energy systems across Europe.

Next Generation Hydropower Aims to Cut Environmental Impact

New hydropower technologies could cut environmental damage by up to 50 percent compared to large dams, according to industry estimates. These include smaller modular systems and advanced turbines that reduce impacts on ecosystems and communities.

In parts of Africa and Asia, such solutions may expand access to renewable energy while limiting social and environmental costs. As hydropower remains a major global energy source, its future depends on improved sustainability and stronger environmental governance.

10 kWh

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20%

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50%

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