New technologies in renewable energy

MIT researchers--led by Franz-Josef Ulm (Civil and Environmental Engineering), Admir Masic (Civil and Environmental Engineering), and Yang-Shao Horn (Mechanical Engineering)--created a "supercapacitator" using cement and carbon black that can store renewable energy.

What are the emerging trends within renewable energy? Explore our in-depth industry research on 5152 renewable energy startups & scaleups and get data-driven insights into innovative solutions spanning PV, DESS, hydropower, green hydrogen, grid integration, blockchain & more!

More efficient solar cells mean each solar panel can generate more electricity, saving on materials and the land needed. Manufacturing silicon solar cells is also an energy-intensive process. Experts warn that renewable power capacity must triple by 2030 to limit global warming to 1.5°C, and solar is predicted to play a major role, so the ...

With the world"s renewable energy capacity reaching record levels, four storage technologies are fundamental to smoothing out peaks and dips in energy demand without resorting to fossil fuels.

Super-efficient solar cells. Winner: Best Supporting Actor. Solar panels are among the most important, and perhaps the most recognizable, tools to address climate change. But one next-generation...

Researchers are exploring new materials and designs that could make VAWTs even more efficient and cost-effective, paving the way for a future where renewable energy is accessible to everyone.

The 2023 update of Tracking Clean Energy Progress, available on the IEA website, tracks progress towards aligning the global energy system with a path to reaching net zero emissions by 2050. It does this by assessing over 50 different components, from sectors to technologies to infrastructure.

Fast and effective renewable energy innovation is critical to meeting climate goals. Here are five solutions that could help countries meet emissions targets. The need for renewable energy innovation has never been greater.