

Liquid air energy storage for home use





Overview

Are liquid air energy storage systems economically viable?

“Liquid air energy storage” (LAES) systems have been built, so the technology is technically feasible. Moreover, LAES systems are totally clean and can be sited nearly anywhere, storing vast amounts of electricity for days or longer and delivering it when it’s needed. But there haven’t been conclusive studies of its economic viability.

Could liquid air energy storage be a low-cost option?

New research finds liquid air energy storage could be the lowest-cost option for ensuring a continuous power supply on a future grid dominated by carbon-free but intermittent sources of electricity.

What is liquid air energy storage?

Concluding remarks Liquid air energy storage (LAES) is becoming an attractive thermo-mechanical storage solution for decarbonization, with the advantages of no geological constraints, long lifetime (30–40 years), high energy density (120–200 kWh/m³), environment-friendly and flexible layout.

Could liquid air energy storage be the key to storing surplus electricity?

However, both have their own limits, geography and length of storage, respectively. That’s why research into a technology that has been around for decades is getting renewed attention. Liquid air energy storage (LAES) systems could hold the key to storing surplus electricity for when it is needed days later, or even longer.



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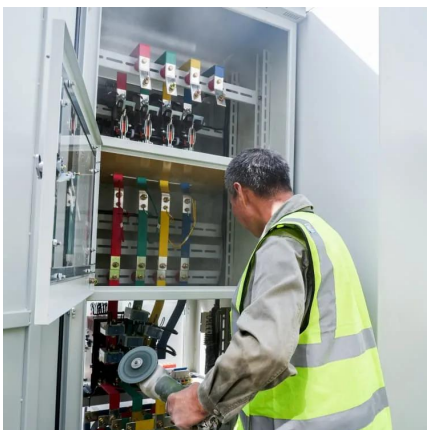


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