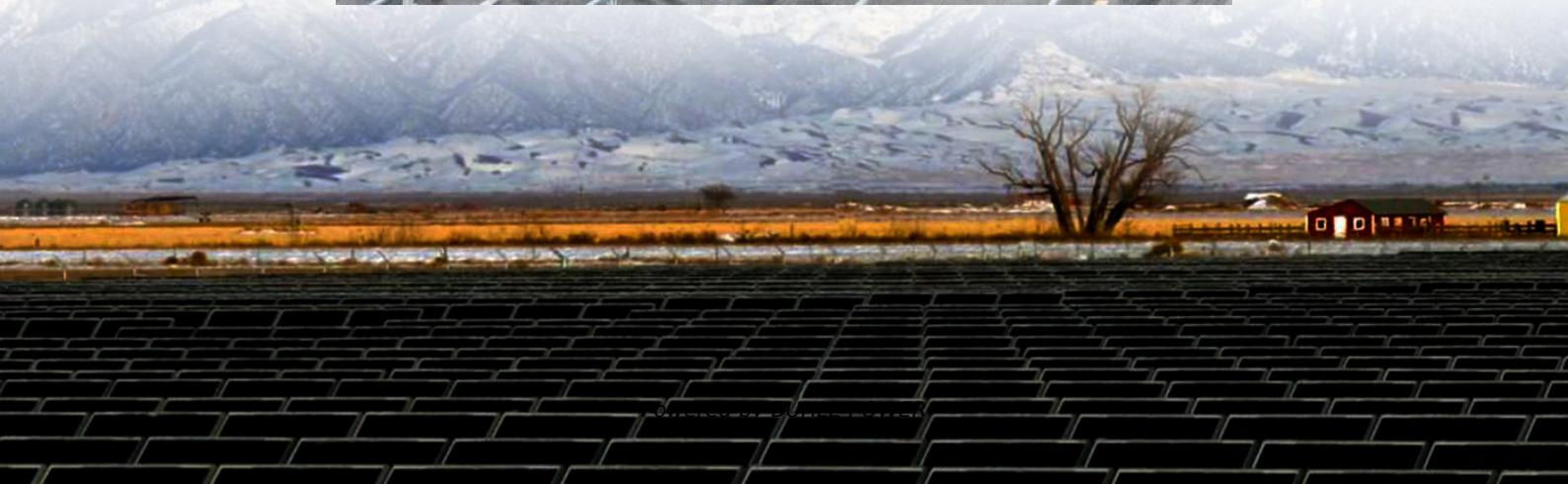
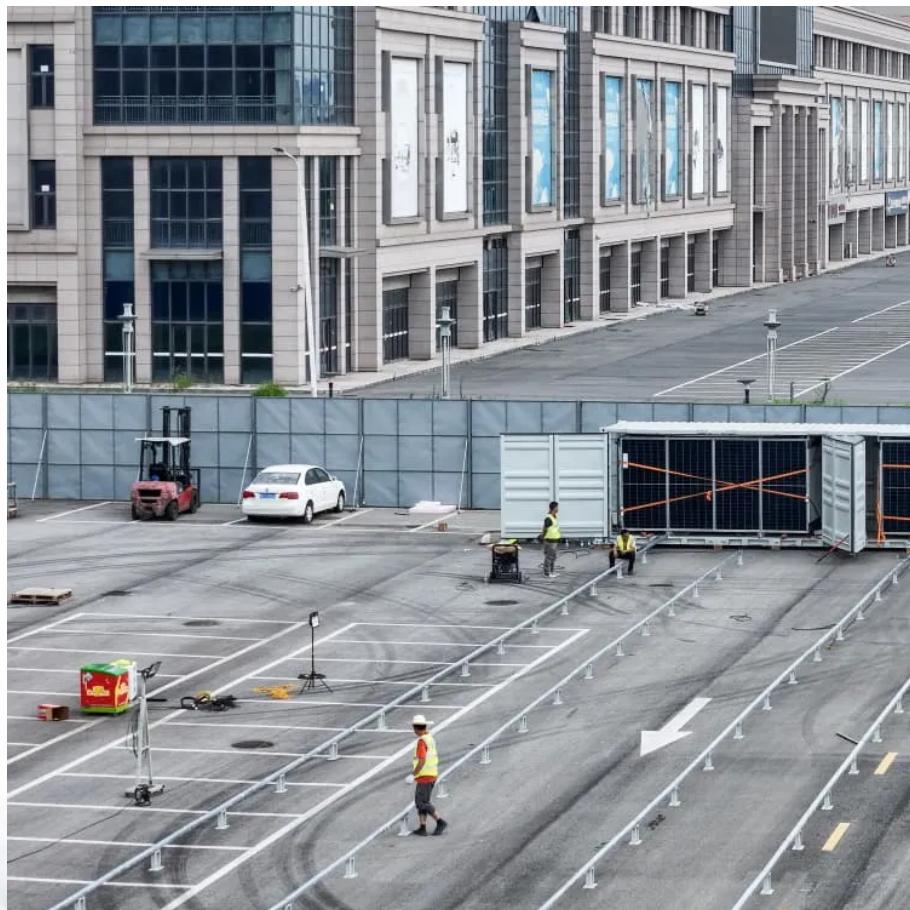




BUHLE POWER

The relationship between new energy storage and pumped storage





Overview

What is a pumped-storage system?

One such system is being developed by Quidnet Energy, funded by the U.S. Department of Energy's Water Power Technology Office, as an innovative geo-mechanical pumped-storage system and it uses the pressure in underground wells to generate electricity.

Will pumped storage increase global hydropower capacity?

If one-tenth of the global conventional hydropower capacity⁵ is technically eligible for similar-scale pumped storage renovations, this could result in an increase of over 120 GW in storage capacity — 1.2 times greater than the total capacity of all other energy storage technologies worldwide.

How can a long-duration energy storage system be improved?

Addressing these challenges requires advancements in long-duration energy storage systems. Promising approaches include improving technologies such as compressed air energy storage and vanadium redox flow batteries to reduce capacity costs and enhance discharge efficiency.

Is pumped storage the key to Australia's Energy Future?

Pumped storage's vital role of in securing reliable, low-carbon energy systems was recently highlighted at a landmark series of discussions in Australia. Policymakers, industry leaders, and investors were brought together by GHD and the IHA to discuss the technology's part in Australia's energy future.



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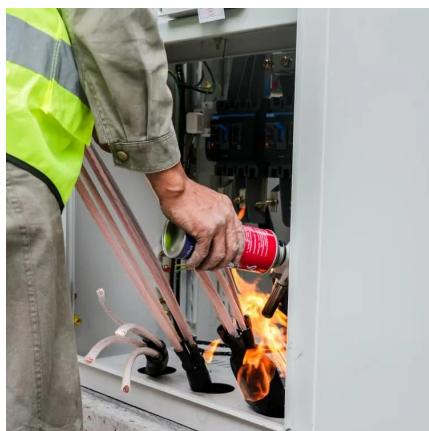
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