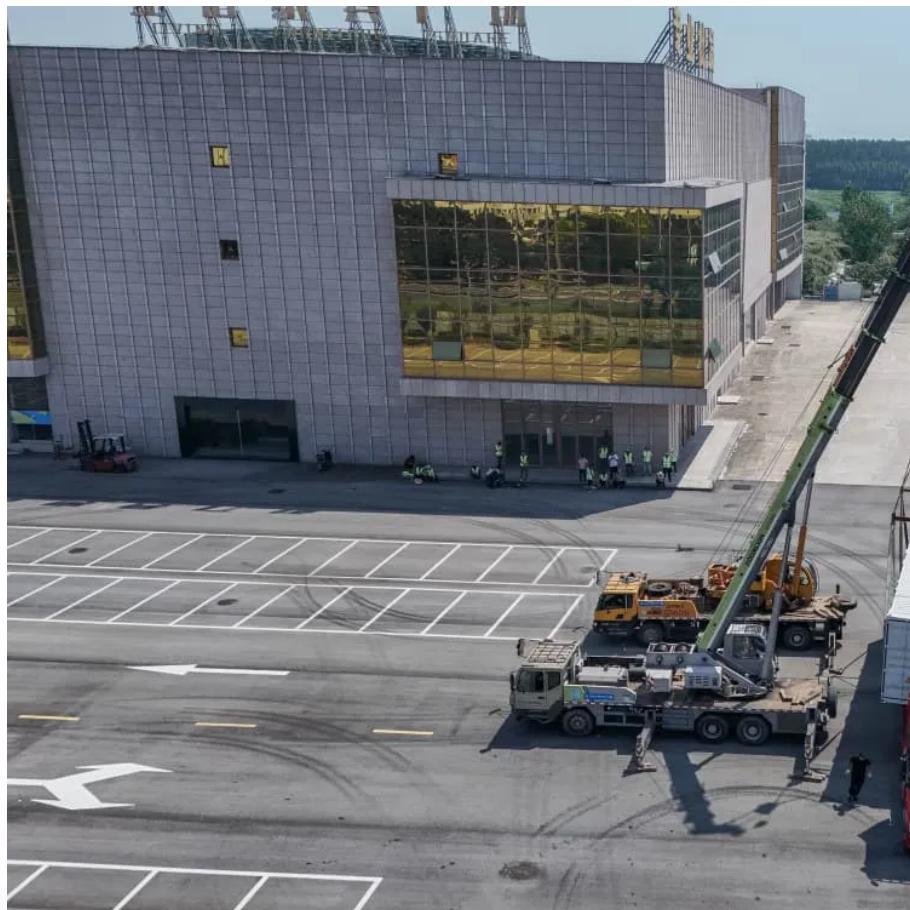




**BUHLE POWER**

# **Adsorption Energy Storage Project**





## Overview

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What is adsorption based energy storage?

One type of energy storage system that is gaining popularity is adsorption-based energy storage such as adsorption thermal energy storage (ATES) also referred to as adsorption heat storage (AHS), a green technology that relies on the interaction between the surface of adsorbents and fluids as the adsorbates.

What is adsorption thermal energy storage?

Adsorption thermal energy storage (ATES) systems hold significant promise for improving the efficiency of energy storage and retrieval by utilizing the physicochemical processes of adsorbents.

What is gas adsorption technology?

Moreover, gas adsorption technology is an important area of research due to its potential for applications in clean energy and greenhouse gas capture. Porous solids, such as metal-organic frameworks (MOFs), are promising adsorbent materials for gas storage and separation due to their high surface areas and tunable properties .

Why is adsorption energy important?

The adsorption energy of a material is a critical parameter that determines its ability to store energy. Accurately predicting the adsorption energy of a material can help researchers identify new materials that can be used for energy storage applications [19, 20].



## Adsorption Energy Storage Project

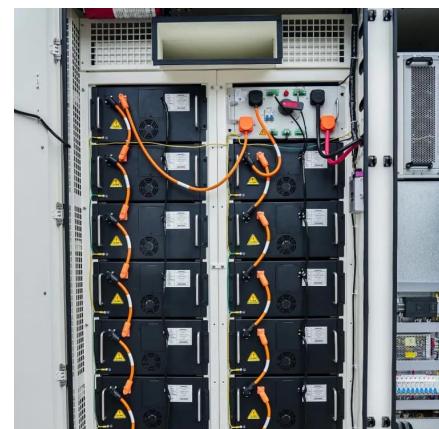


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