

# Energy storage power station project involves covered mines





## Overview

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Can abandoned mines be used for pumped storage power stations?

The unique features of abandoned mines offer considerable potential for the construction of large-scale pumped storage power stations. Several countries have reported the conversion of abandoned mines to pumped storage plants, and a pilot project for the conversion of an underground reservoir group has been formalized in China.

How is a pumped storage power station constructed?

A pumped storage power station is constructed by utilizing the difference in heights between the abandoned open pits. Since the upper and lower reservoirs are completely exposed to the surface, it is also called open abandoned-mine pumped storage ( Figure 3 ).

How can Abandoned-Mine pumped storage technology improve the power grid?

Abandoned-mine pumped storage technology can help the peak shifting of the power grid and improve the operating stability and economy of the power grid, but the construction of the pumped storage power station is restricted by geographic conditions; that is, there must be a large enough drop between the upper and lower reservoirs.

How was the abandoned mine converted into a pumped storage system?

The surface/underground space of the abandoned mine were converted into an energy storage reservoir, and a water delivery system was put in place to constitute a pumped storage system [ 24, 25 ].



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Detailed explanations of the principles, classifications, advantages, and disadvantages of closed/abandoned mine pumped storage energy technology are provided. The utilization ...

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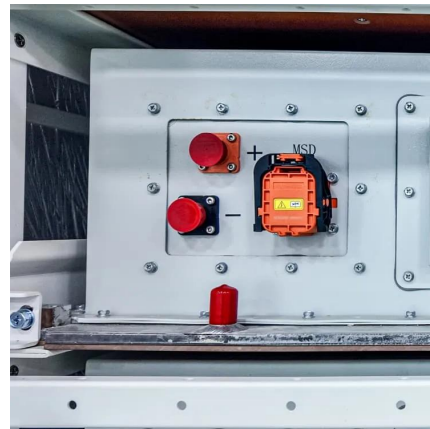


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