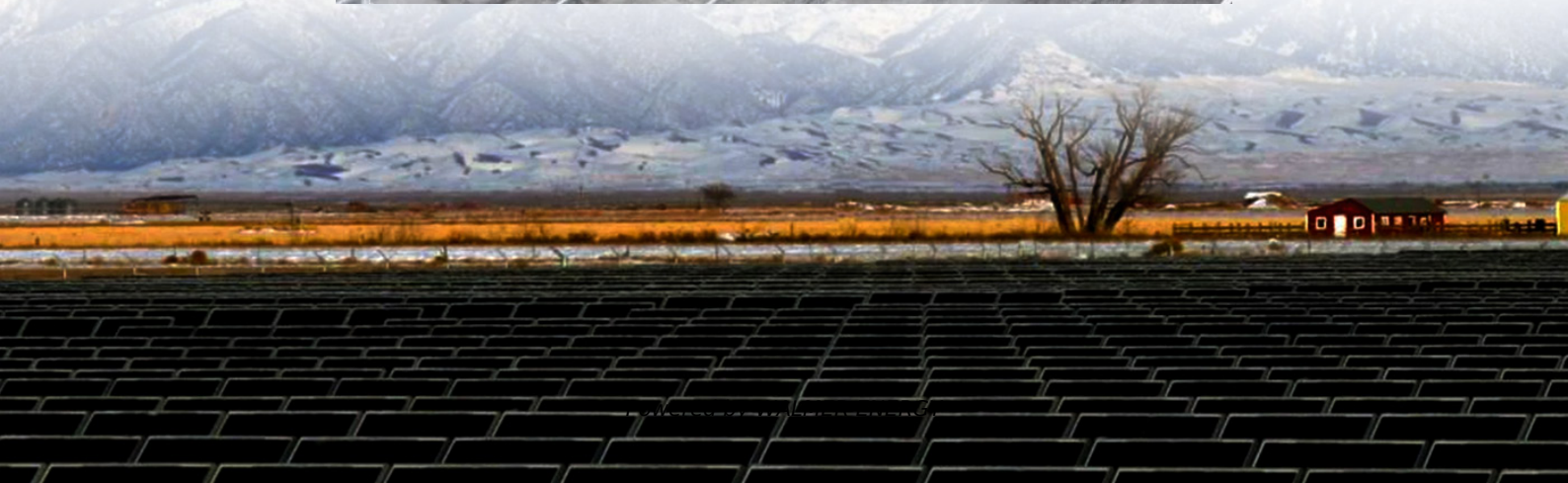


Influence on the discharge depth of energy storage power station





Overview

What is a pumped storage power station?

Pumped storage power stations are unique in combining both water pumping and electricity generation functions. They play a crucial role not only in facilitating the integration of clean energy but also as an indispensable part of building a modern, intelligent power system [, ,].

Why is a pumped storage power station inlet/outlet design important?

Therefore, optimizing the design of the inlet/outlet to ensure smooth flow transitions is crucial for enhancing the overall performance of pumped storage power stations . A well-designed inlet/outlet for a pumped storage power station can exhibit good hydraulic characteristics and reduce head loss.

Does shape optimization improve discharge distribution under water pumping conditions?

In summary, this study investigated the discharge distribution and flow velocity distribution under different shape parameters of a pumped storage power station, demonstrating that reasonable shape optimization is an effective means to improve discharge distribution imbalance and reduce discharge deviation under water pumping conditions.

Do separation pier shape and Inflow Conditions influence discharge deviation?

Combined with Fig. 12, which shows the horizontal profile of flow velocity distribution in the diffusion segment under water pumping conditions, it is evident that separation pier shape and inflow conditions significantly influence the discharge deviation in the middle channel. Fig. 11.



Influence on the discharge depth of energy storage power station

Effects of separation pier shape and inflow conditions on the

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