

What is IHA's hydropower pumped storage tracking tool?

IHA's Hydropower Pumped Storage Tracking Tool maps the locations and data for existing and planned pumped storage projects. The tool is the most comprehensive and up-to-date online resource tracking the world's water batteries.

How many pumped storage plants are there?

There are 43 PSH projects in the U.S.<sup>1</sup> providing 22,878 megawatts (MW) of storage capacity<sup>2</sup>. Individual unit capacities at these projects range from 4.2 to 462 MW. Globally, there are approximately 270 pumped storage plants, representing a combined generating capacity of 161,000 (MW)<sup>3</sup>.

Does China have pumped storage projects?

Global map showing a concentration of planned pumped storage projects in China. In 2021, China released an ambitious plan to roll out pumped storage nationwide in an effort to reduce reliance on fossil fuels. China's momentum has allowed it to surpass Europe's capacity for pumped storage.

How does a pumped storage hydropower project work?

Pumped storage hydropower projects use electricity to store potential energy by moving water between an upper and lower reservoir. Using electricity from the grid to pump water from a lower elevation, PSH creates potential energy in the form of water stored at an upper elevation, which is why it is often referred to as a "water battery".

How do pumped storage projects work?

The developers of the pumped storage project will study their site conditions, markets they will serve, economics and make equipment configurations selections from the aforementioned technologies. They will also make selections on the number of units and MW size.

Are pumped storage projects too important to fail?

However, despite the need for such important long duration storage, pumped storage projects are still facing significant challenges which means that there's a lack of projects progressing to construction, with cost and schedule overruns. "The sector is too important to fail", said Chris McMonagle, Global Business Development Manager at Bechtel.

Pumped storage projects, however, can't just be built anywhere. They need a mountainous area with a steep descent to give the water a strong enough flow to spin the turbines. So the majority of ...

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Upon completion, the project will be one of the largest clean energy projects of its kind in India, according to a release. The Gandhisagar (or Gandhi Sagar) Pumped Storage Project (PSP), ...

Voith has signed a contract with China's Shanxi Yellow River Water Industry Corporation to supply and install 19 large-scale pumps and accessories for the Wan Jia Zhai project in Beijing. Voith's scope of supply ...

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