



Ringwallspeicher - a geotechnical option for large storage capacities

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For a regenerative power supply, based on wind and sun and without fallback to fossil or nuclear energy carriers, the actually available storage capacity of Germany would be required about 500 times as large. If pumped hydro systems shall be established in a land saving way, than gauge deviations should be as large as possible in the upper and in the lower basin, besides a maximum height difference between the two basins.

With a Ringwallspeicher, large storage capacities with a high degree of efficiency can be built also in areas, where classic pumped hydro systems wouldn't be considered, because large height differences can be established and natural existing height differences can be increased. Also the water gauge deviations offer a wide scope in designing. Bucket-wheels would excavate the lower basin to build the dam for the upper basin, which will be sealed on the inside. The plant would be operated like a pumped hydro storage system.

Using not demanded electricity, water is pumped into the upper basin, which will flow through turbines back down if there is an electricity deficiency.

The geometry of these storage plants would lead to a rapid growth of capacity with increasing dimensions.

More informations: <http://www.ringwallspeicher.de>.