

Slovenia Compressed Air Energy Storage Project





Overview

What is compressed air energy storage (CAES)?

Among the different ES technologies, compressed air energy storage (CAES) can store tens to hundreds of MW of power capacity for long-term applications and utility-scale. The increasing need for large-scale ES has led to the rising interest and development of CAES projects.

What is Slovenia's energy capacity?

The reference capacity in the related scenario is 1.1 GW, from a range of 1 GW to 2.4 GW. A small modular reactor (SMR), of 250 MW, would come online by mid-century, the NECP reads. Slovenia plans to maintain a high level of electricity connectivity with neighboring countries, with a goal of more than 80%.

How many hydropower plants will Slovenia have by 2045?

Another pumped storage hydropower plant is seen by 2045. It would be able to generate 180 MW and store 2.6 GWh. The Integrated National Energy and Climate Plan envisages an overall 500 MW in gas power plants in Slovenia by the end of the decade.

Can compressed air energy storage improve the profitability of existing power plants?

Linden Svd, Patel M. New compressed air energy storage concept improves the profitability of existing simple cycle, combined cycle, wind energy, and landfill gas power plants. In: Proceedings of ASME Turbo Expo 2004: Power for Land, Sea, and Air; 2004 Jun 14–17; Vienna, Austria. ASME; 2004. p. 103–10. F. He, Y. Xu, X. Zhang, C. Liu, H. Chen



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