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Patent application for compressed air energy storage system

and storing energy. Compressed air energy storage (CAES) systems typically include a compression train having a plu rality of compressors that compress intake air and provide the compressed intake air to a cavern, underground storage, or other compressed air storage component. The compressed air

A hybrid compressed air energy storage system is provided . A heat exchanger 114 extracts thermal energy from a com pressed air to generate a cooled compressed air stored in an

The present invention provides a compressed air energy storage power generation device including: an electric compressor configured to compress air using electric power; a pressure accumulation unit configured to store compressed air discharged from the electric compressor; an expansion generator configured to generate power by ...

There is a need to provide an adiabatic CAES system with improved storage and recovery of the heat of compression by employing practical implementation solutions. Embodiments of the ...

In an embodiment, the present application also discloses an energy storage system for Cased-Wellbore Compressed Air Storage (CWCAS) comprising at least one storage vessel; a...

@article{osti_5382914, title = {Compressed air energy storage system}, author = {Ahrens, F W and Kartsounes, G T}, abstractNote = {An internal combustion reciprocating engine is operable as a compressor during slack demand periods utilizing excess power from a power grid to charge air into an air storage reservoir and as an expander during peak demand periods to feed power ...

Embodiments of systems which provide for the efficient storage and recovery of energy as compressed gas, are described in the U.S. Provisional Patent Application No. ...

Embodiments of systems which provide for the efficient storage and recovery of energy as compressed gas, are described in the U.S. Provisional Patent Application No. 61/221,487 filed Jun. 29, 2009, and in the U.S. nonprovisional patent application Ser. No. 12/695,922 filed Jan. 28, 2010, both of which are incorporated by reference in ...

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