To solve the problem of high-efficiency and large-scale production of low ...

To solve the problem of high-efficiency and large-scale production of low emission hydrogen, a hydrogen co-production scheme combining photovoltaic electrolysis and natural gas reforming with CCS was proposed in this study.

Carbon emissions from the operation phase of buildings exceed 20% of the total national carbon emissions in China. It has become an inevitable trend to reduce carbon emissions from the operation phase of buildings and construct zero-carbon buildings. Based on the two-layer optimization method, a comprehensive optimization method for planning and operation of zero ...

A two-layer optimal allocation model of optical storage capacity for zero-carbon buildings with ...

Over the past decade, global installed capacity of solar photovoltaic (PV) has dramatically increased as part of a shift from fossil fuels towards reliable, clean, efficient and sustainable fuels (Kousksou et al., 2014, Santoyo-Castelazo and Azapagic, 2014).PV technology integrated with energy storage is necessary to store excess PV power generated for later use ...

After combining with scenario demand in China, three promising energy ...

In July 2022, supported by Energy Foundation China, a series of reports was published on how to develop an innovative building system in China that integrates solar photovoltaics, energy storage, high efficiency direct current ...

Solar energy has two main technologies: solar photovoltaic (PV) and concentrating solar power (CSP), which have great potential in fulfilling energy needs. This work provides insight into solar energy technology's role in global decarbonisation and towards net-zero emissions by 2050 through wide deployment and energy yield.

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