Economic Analysis of Thermal Power Storage

Overview

In the context of the rapid development of renewable energy, load regulation of the power grid has become a vital issue, and many researches on load regulation by thermal power plants (TPP) have been conducted. ••Liquid air energy storage is used for load regulation of thermal. Nowadays, the world is in the process of industrialization and urbanization, which leads to high carbon emissions, causing a tremendous negative impact on the global ecological enviro. AbbreviationsAC air coolerAE air expanderAH air heaterARC absorption refrigeration cycleATB air turbineBED packed bedCAES compre. Fig. 1 is the schematic diagram of the charging process and discharging process of the TPP-LAES integrated system, which consists of the steam power cycle and the LAES cycle. 3.1. AssumptionsTo simplify the modeling process of thermodynamic and economic analysis, some rational assumptions are adopted as follows:•1)The sy.

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