عنوان مقاله:

Review and introduction of advanced energy storage technology cycles using a pumped storage power plant

محل انتشار:

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خلاصه مقاله:

Today, one of the issues in Iran s electrical power system, especially noticeable by the planners and operators of the system, is the high variation and unevenness of the load curve in different hours of the day. Energy storage systems are a solution to this challenge through load curve alignment, help in controlling frequency, reducing voltage fluctuations, increasing the power quality and reliability. The pumped storage power plant is important because of the ability to store energy and as a contributing factor between production and consumption. These systems reduce the cost of operating and generating energy in the base load power plants by requiring energy at low load times and generating energy at peak load times, as well as the need to install peak load power stations. In this paper, considering the technology as the only large-scale energy storage technology, advanced designs, and cycles in this .area will be introduced and deeply discussed

کلمات کلیدی:

Energy storage, Load curve, Frequency control, Pumped storage power plant