

## **Determining Efficiency of Frequency Control System of Karkheh Power Plant in Main Network**

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**Abstract :** Karkheh plant in Iran's Khuzestan province and is located in the city Andimeshk. The plant has a production capacity of 400 MW units with water and three hours. One of the important parameters of each country's power grid stability is the stability of the power grid is affected by the voltage and frequency In plants, the amount of active power frequency control is done so that when the unit is placed in the frequency control their productivity is a function of frequency and output power varies with frequency. Produced by hydroelectric power plants with the water level behind the dam has a direct relationship And to decrease and increase the water level behind the dam in order to reduce the power output increases But these changes have a different interval is due to some mechanical problems such as turbine cavitation and vibration are limited. In this study, the range of the frequency control can be Karkheh manufacturing plants have been identified and their effectiveness has been determined.

**Keywords :** Karkheh power, frequency control system, active power, efficiency

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