

عنوان مقاله:

صرفه جویی آب در سیستم های تولید برق: پتانسیل و هزینه

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خلاصه مقاله:

Power plants have noticeable share from underground water consumption. In order to make some water savings, different approaches such as replacing wet cooling towers and installing renewable energy sources have been proposed. These medium and long term approaches however need huge investments and may degrade performance of the system. This paper discusses generation system water consumption minimization as a short term solution. To do so, conventional economic dispatch problem is extended to a multi-objective problem where a linear combination of electricity generation cost and water consumption is minimized. The paper presents estimation procedure of water saving cost function in a generation system. Then, a test system is applied to determine potentials and costs of saving water in a generation system. Different studies are conducted and the results are presented. Finally, water saving cost function is estimated for the generation system. According to the results, some relevant conclusions are drawn

کلمات کلیدی:

Electric energy generation system, Underground water sources, economic dispatch, water consumption saving

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