

## عنوان مقاله:

Energy Savings in Distribution Feeders by Optimal Capacitor Bank Installation

## محل انتشار:

دومین کنفرانس سراسری اصلاح الگوی مصرف انرژی الکتریکی (سال: 1389)

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## خلاصه مقاله:

Restructuring of the electric utility industry in many parts of the world is causing extensive attention to losses in the power distribution networks and saving the energy. Energy losses arise as power flows through the network to meet customer load demands. Some of the input energy is dissipated in the conductors along the delivery route. These losses are inherent in the processing and delivery of power but can be minimized to maximize returns. These losses ۲۵ percent percent to the cost of electricity and some ۸ represent a considerable operating cost, estimated to add ۶ to to the cost of delivery. Hitherto, electric utilities operating as government monopoly institutions in rigid grid structures, have in the past paid little attention to reducing the losses because they did not constitute major operational or quality of supply problems. In market-driven economies and deregulated electricity industry environments, the minimization of these losses has assumed greater importance. From the utility perspective, these losses need to be reduced to their optimal level. This paper focuses on copper loss minimization in a deregulated power network. The paper presents a simple and practical method to achieve the loss minimization through reactive power compensation by means of optimal locating and sizing of the capacitor banks. The proposed method is performed in Tabriz distribution network as .verification and the results are reported in the paper

## کلمات کلیدی:

Energy saving, Deregulation; Loss minimization; Optimization; Reactive power; Identification; Fitting

## لینک ثابت مقاله در پایگاه سیویلیکا:

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