

عنوان مقاله:

Allocation of reactive power cost in power system using Current Adjustment Factor

محل انتشار:

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خلاصه مقاله:

In power markets, the system operator is responsible for network security. Reactive power is important for system security and compensation, but no one is still responsible for the cost of this service because the commodity traded in the electricity markets is still the only active power. In this article, it is believed that participants who participate in loss reduction will be rewarded with less loss allocation rather than negative allocation. Doing so avoids the possibility of cross subsidization. At the same time, by allocating small losses, there is an incentive to reduce losses. This article first introduces reactive power cost allocation. Then, the proposed current mode adjustment method, shingles selection, proposed voltage participation index, three-bus system case study and IEEE 14-bus system case study are the components of the article. Conclusions and suggestions are given at the end. This project proposes a competitive reactive power market that determines the share of each contract in reactive and reactive power losses using the flow adjustment coefficient method. The project also helps present real power markets, where active power is still the main commodity traded. The proposed methods and indicators are in line with intuitive expectations. This result is obtained by case studies on test systems.

کلمات کلیدی:

Reactive Power , Current Adjustment Factor , Cost allocation

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