عنوان مقاله:

Optimal Charging of Electrical Vehicles with V2G in Smart Grids Considering Voltage Quality and Energy Losses

محل انتشار:

کنفرانس بین المللی فناوری و مدیریت انرژی (سال: 1394)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

The charging task of Electric Vehicles (EVs) in a large scale is very important because EVs can impose adverse effects on the grid. This study proposes a method to reduce total energy losses and to enhance voltage profile in charging EVs with Vehicle to Grid (V2G) capability considering constraints of the grid and EVs. In the proposed method, total energy losses and voltage status have been in states of with and without V2G. The proposed method is validated by testing on a 31-bus test system and results confirm its efficiency.

کلمات کلیدی:

Electrical vehicle, V2G, optimal charging, voltage quality, total energy losses