

新能源与分布式发电

配电网中分布式电源容量补偿方法

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摘要:

为发挥分布式电源(distributed generation, DG)优势, 激励独立投资者进行DG投资, 提出了市场环境下配电网中DG的容量补偿方法。确定了DG接入配电网给各负荷点带来的可靠性增量价值以及给供电公司带来的配电网扩容投资节省价值, 根据DG接入产生价值可确定DG所有者获得的补偿、各负荷点用户及供电公司需支付费用。该方法可为DG投资者提供DG选址和定容的经济信号。算例结果验证了该方法的有效性。

关键词:

A Method to Compensate Independent Distributed Generation Capacity in Distribution Network

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Abstract:

To bring the superiority of distributed generation (DG) in to full play and incite independent investors to invest in DG, a method to compensate capacity of independent DG in marketing environment is proposed. The incremental value of reliability for consumers at all load-points and the value of saved investment of distribution company to increase capacity of distribution network, which are brought by connecting DG to distribution network, are determined; according to the value generated by connecting DG to distribution network, the compensation that the DG owner obtain as well as the charges that the consumers at load-points and distribution company should pay can be determined. The proposed method can offer economic signals to choose the installation site and decide the capacity of DG for independent investors. The effectiveness of the proposed method is verified by the results of calculation example.

Keywords:

收稿日期 2009-09-24 修回日期 2010-05-26 网络版发布日期 2010-10-17

DOI:

基金项目:

国家自然科学基金项目(70671041, 70771039)。

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