

عنوان مقاله:

Impact of Unbalance Load Characteristic on Controlled Autonomous Micro Grid via Local Angle -Frequency Droop Control

محل انتشار:

اولین کنفرانس بین المللی دستاوردهای نوین پژوهشی در مهندسی برق و کامپیوتر (سال: 1395)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

Islanding occurrence in micro grids which benefit by distributed generation (DG) can change the quiddity of system from passive mode to active. A lot of methods had proposed to control islanding micro grid(IMG) while, the droop control method is one of very flexible methods. The local droop control method maintains frequency and voltage in IMG without any communication link between the DGs. The elementary droop controller change in to advantaged droop controller, in order to that not able to support these two parameters in IMGs. The purpose of this study is presentation an angle-frequency advantaged droop method without attend upstream network. In this structure, there are three cascading droops including angle, frequency, and power. The real power loop is achieved by using angle droop .The first loop is frequency which is the reference angle as an angle from frequency error. The real power loop is achieved by using angle droop. The main advantage of this method is fixed frequency of (MG), while, voltage droop has performed too. The key of issues is integrator gain in proportional- integral (PI) controller of voltage regulation to achieve synchronous voltage droop control in under studying IMG basis of the load unbalanced characteristic. This topology applies to voltage source converters (VSCs). MATLAB/ SIMULINK application has been used to confirm proper functioning of the control system

کلمات کلیدی:

distributed generation; islanding micro-grid; decentralized droop control; angle-frequency droop; unbalance load characteristic

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/497198>



