Hybrid Micro-grid Control and Active Power Sharing Using MIT Rule Based on Speed Droop Controller

Mazin Mustafa Mahdi
Sustainable Energy & Power Electronics Research (SuPER) Group,
Faculty of Electrical & Electronics Engineering, University Malaysia Pahang, Pekan, Pahang, Malaysia
alqaisimustafa4@gmail.com

Abu Zaharin Ahmad
Sustainable Energy & Power Electronics Research (SuPER) Group,
Faculty of Electrical & Electronics Engineering, University Malaysia Pahang, Pekan, Pahang, Malaysia
zaharin@ump.com

***Abstract*- This work investigates dynamic behavior and improves the performance of the active power sharing. The transfer of micro-grid from grid-connected mode to island mode is faced by many challenges. In addition, the minimizing frequency fluctuation during sudden changes in the load is still an issue. A new proposed method to control the grid frequency for active power sharing is presented using adaptive MIT rule. The comparison of the response is then compared with the conventional PI controller for the output response verification. The results show the proposed method producing promising and better response. Micro-grid model is developed using Matlab/Simulink.**

Index Terms - MIT rule, Speed droop controller, Active Power sharing, Microgrid.

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