Development of Demand Response Management System for Microgrid

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Abstract
A new grid topology has benefitted to the consumers and also utility indirectly, which is called micro grid. It uses renewable energy sources as distributed generations to distribute the electricity directly to the consumer. This can provide a management system for replying the demand from the consumer, and dual communication system between consumer and utility. In this paper, the demand response management system is developed and simulated by adopting a fuzzy control system. The simulation is performed using the dynamic pricing and energy consumption as the inputs for implementing the demand response. The comparison results between the energy consumption before and after participation in the demand response program are presented.

Keywords: Micro Grid, Demand Response, Fuzzy Control System.