Demand Side Management for Micro Grids through Smart Meters

W A D S L Wettasinghe, H RWidisinghe, P D D S Wijayasekara, S R M D T S Wijesekara and K T M U Hemapala

Abstract

A microgrid is a small scale power system consisting of distributed small power facilities such as solar power, wind power and micro-turbines. Because of some merits such as an eco-friendly system, good quality power supply and energy security, the microgrid has been researched and encouraged actively in many countries. For commercialization, the effective operation for the microgrid is very important. Microgrid power generation satisfies the power requirement of considerable number of off-grid consumers. Therefore consumers are limited to a low power usage. A Demand Side Management (DSM) system can be used for better power distribution among the consumers which is not in use nowadays. In this project the authors have made a network among consumers through Smart meters which are providing the ability to measure the real time power consumption and send those usage stats to the central server.