

A review on microgrid control techniques

ABSTRACT

In recent years with penetration of distributed energy sources in power systems and generation of electricity from them, controlling the stability of network has become more complicated. In this respect, different works have shown a tendency to use different methodologies to simplify the control of network stability. Nowadays, engineers divide the distribution system to many subsystems, which are called microgrid. A microgrid works in two modes: grid-connected and island mode, which require methods to control. The control methods can be divided into two forms, with communication and without communication. This paper is a short survey on controlling microgrids with distributed renewable energy resources particularly in island mode and discusses Multi-agent systems and droop characteristics.

Keyword: Droop characteristic; Island mode; Microgrid control; Multi-agent systems (MAS); With and without communication strategies