AC Microgrid PCC

The point of common coupling (PCC), as defined in IEEE 1547- 2018, is the specific location where a local power system, such as a microgrid or distributed energy resource (DER), connects to the area ...

PCC-DPC is used to instantly control voltage at the point of common coupling (PCC) inside the microgrid as opposed to other conventional techniques.

A direct power control (DPC) approach is proposed in this study for a grid-tied photovoltaic (PV) voltage source inverter (VSI) to regulate active and reactive power flow directly in between utility grid and ...

For grid synchronization rather than employing phase-locked-loop (PLL) technology, in this study, direct power calculation of the PCC voltage and current is adopted.

Abstract This study proposes an alternating current microgrid that integrates renewable energy sources to enhance energy sustainability. In this system, wind and solar power are initially ...

In summary, although the PCC power fluctuations problem is more prominent in AC grid-connected microgrids (GC-MGs) that incorporate multiple BESSs, there is currently insufficient ...

In this paper, a direct power control (DPC) approach is proposed for grid-tied AC MG"s photovoltaic (PV) voltage source inverter (VSI) to regulate directly active and reactive powers by modulating ...

Design an AC microgrid with the combination of photovoltaic (PV), battery energy storage system (BESS), and genset for standalone applications. Genset is generally used as a standby or ...