

In this paper, a novel hybrid AC/DC microgrid architecture with a hierarchical control strategy is proposed to achieve nearly/net-zero-energy-targeted buildings.

This paper introduces a novel design for a universal DC-DC and DC-AC converter tailored for DC/AC microgrid applications using Approximate Dynamic Programming and Artificial Neural ...

The purpose of this chapter is to review the advantages and disadvantages of AC/DC hybrid grids and analyze potential applications that would benefit from such infrastructures.

The transition toward renewable energy sources (RES) and the increasing complexity of energy demand have necessitated the adoption of hybrid AC/DC microgrids. These systems ...

In order to reduce the economic costs, enhance the efficiency, and improve the structural stability of microgrids, this paper proposes a novel AC/DC hybrid microgrid structure.

Microgrids are required to integrate distributed energy sources (DES) into the utility power grid. They support renewable and nonrenewable distributed generation technologies and provide ...

In this paper, a solar and wind renewable energies-based hybrid AC/DC microgrid (MG) is proposed for minimizing the number of DC/AC/DC power conversion processes.

A microgrid undergoes transformation from AC or DC microgrid to a hybrid AC/DC microgrid and the interconnection of two diverse subgrids, and therefore demands new control strategies or ...

This paper describes the topology and functional units of the grid in detail, and simulates the work of the microgrid in each operating state through simulation, which verifies that the proposed grid has high ...

This hybrid AC and DC platform is being promoted as an open architecture focused on increasing resiliency while reducing total cost. It anticipates a much great integration of direct current to simplify ...



# AC DC Microgrid Platform

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