

In this study, a microgrid operation optimization method, including power-to-gas equipment and a hybrid energy storage system, is proposed. Firstly, this study constructs a microgrid system ...

This paper investigates the operation of a micro gas turbine in a microgrid, serving as a supplementary power source for a municipal building.

In order to deal with the unpredictable energy inputs from renewables, the micro gas turbine must be capable of running under varying load conditions and making fast transitions ...

This white paper focuses on tools that support design, planning and operation of microgrids (or aggregations of microgrids) for multiple needs and stakeholders (e.g., utilities, developers, ...

In this paper, PSCAD/EMTDC simulation software is used to build a dynamic model of micro-grid based on micro-turbine power generation system, and the grid-connection and island operation ...

The primary objective of the paper is to highlight the feasibility and benefits of employing micro gas turbines and hydrogen storage systems within a MG as a renewable energy backup power...

By combining thermodynamic modeling, machine learning and multi-objective optimization, this research provides a reproducible methodology for the scientific community to ...

The integration of micro gas turbine (MGT) into hybrid energy plants and smart grids has gained significant attention. Increasing emphasis is being placed on improving their performance and ...

In this paper, we take account of these operational characteristics of batteries and gas turbine engines. More precisely, we separate power fluctuations in a microgrid into two subsignals so that gas turbine ...

"dumb" generation. The gas turbine microgrid is central to this smartenin. of power generation. The term dumb generation describes the kind of conventional power plants, wind ...

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