

Energy Planning Analysis of an Agritourism Complex Based on Energy Demand Simulation: A Case Study of Wuxi Yangshan Agritourism Complex

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Abstract : China is experiencing the rural development process, with the agritourism complex becoming one of the significant modes. Therefore, it is imperative to understand the energy performance of agritourism complex. This study focuses on a typical case of the agritourism complex and simulates the energy consumption performance on condition of the regular energy system. It was found that HVAC took 90% of the whole energy demand range. In order to optimize the energy supply structure, the hierarchical analysis was carried out on the level of architecture with three main factors such as construction situation, building types and energy demand types. Finally, the energy planning suggestion of the agritourism complex was put forward and the relevant results were obtained.

Keywords : agritourism complex, energy planning, energy demand simulation, hierarchical structure model

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