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What are the operational constraints of 5G communication base stations?
The operational constraints of 5G communication base stations studied in this paper mainly include the energy consumption characteristics of the base stations themselves, the communication characteristics, and the operational constraints of their internal energy storage batteries.

Where are 5G communication base stations located?
Furthermore,5G communication base stations with energy storage are located at nodes 6,8,15,and 31,each group containing 100 base stations,labeled as groups 1,2,3,and 4. The fundamental parameters of the base stations are listed in Table 1.

What are the basic parameters of a base station?
The fundamental parameters of the base stations are listed in Table 1. The energy storage battery for each base station has a rated capacity of 18 kWh, a maximum charge/discharge power of 3 kW, a SOC range from 10% to 90%, and an efficiency of 0.85.

What is the equipment composition of a 5G communication base station?
Figure 1 illustrates the equipment composition of a typical 5G communication base station,which mainly consists of 2 aspects: a communication unit and a power supply unit.

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