Integrated signal base station power outage

Can a base station predict a power outage?
Though each single power outage of one given base station is truly hard to predict precisely,the statistical long-term power outage trends (e.g.,in every year) can have a very similar pattern (e.g.,a base station built in cold area may suffer from several power outages due to the heavy snow every year).

Is there a mismatch between backup batteries and power outages?
Our real trace-driven data analysis clearly reveals that in the battery allocation strategy currently used in practice,there exists a mismatchbetween the supporting ability of backup batteries and the power outage situations in each base sta-tion. The mismatch can lead to serious problems in base sta-tions.

How many base stations in China have a power outage?
In this paper, we closely examine the power outage events and the backup battery activities from a 1.5-year dataset of a branch of a major cellular service provider in China, including 4,206 base stations and more than 1.5 bil-lion records on base stations and batteries.

What causes power outages?
The modern power grid is known to be highly reliable in urban areas, but still suffers from outages due to the severe weather (e.g., storm, hurricane, fire, earthquake) or human-driven accidents (e.g., vandalism or theft) , . In many rural areas, the outages can be quite frequent, no matter in developing or developed countries.

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