



Figure 18.4 Energy-flow diagram on a one-year basis of the autonomous power supply system Unterkrummenhof (PV diesel battery) near Freiburg/Germany [6]

deep discharge during the winter months. Classical SHSs are very much like Class 2 or Class 3 systems and village power supply systems like Class 4.

An extension of the classification including the Southern Europe climatic conditions is necessary but is not available yet.

The time series of a battery's state of charge (Figure 18.6) and the current/voltage representation (Figure 18.5) demonstrate that batteries in stand-alone systems have to operate under very specific conditions such as the following: