

BATTERY STATE OF CHARGE

State of Charge	Sealed or Flooded Lead Acid	Gel battery	AGM battery
100%	12.70+	12.85+	12.80+
75%	12.40	12.65	12.60
50%	12.20	12.35	12.30
25%	12.00	12.00	12.00
0%	11.80	11.80	11.80

The less your deep cycle battery is discharged before being properly recharged again, the longer it will last.

State of charge does vary a little between a sealed lead acid, flooded, gel and AGM deep cycle battery types and also between brands. Even the weather can play a role

The table shows the voltage and approximate state of charge for each type of battery.

Note: The figures are based on open circuit readings; i.e. when the deep cycle battery isn't under load and hasn't been under load for a few hours. This scenario may not occur very often in a battery based system that's continually being used; so the best time to take the reading is early in the morning before the sun hits your panels, in the evening as the sun is setting, or when it's very overcast. If you take a reading while the battery is receiving charge, it could read anything up to 14.5 volts.

If you take the reading when the panels aren't exposed to the sun, as there will likely be power being drawn at the time, you can assume that whatever the voltage reading, it's a conservative estimate. Once all load is removed from a battery, voltage can bounce back up substantially.