

## Battery Storage Technologies

There are two categories when it comes to batteries and energy storage; the first is called a 'Primary Cell' which basically means it is non-rechargeable. The second category is the 'Secondary Cell' which is another way of saying that it can be used more than once, also known as rechargeable.

The following is a list (not comprehensive) of some of the most common types of rechargeable battery technologies that are commercially available:

- Flow batteries
  - Vanadium redox battery
  - Zinc–bromine battery
  - Zinc–cerium battery
- Fuel cell
- Lead–acid batteries
  - Deep cycle battery
  - VRLA battery
  - AGM battery
  - Gel battery
- Lithium Based Batteries
  - Lithium-air battery
  - Lithium-ion battery
  - Beltway battery
  - Lithium ion manganese oxide battery (IMR)
  - Lithium ion polymer battery
  - Lithium iron phosphate battery
  - Lithium–sulphur battery
  - Lithium–titanate battery
- Molten salt battery
- Nickel Based Batteries
  - Nickel–cadmium battery
  - Nickel–cadmium battery vented cell type
  - Nickel hydrogen battery
  - Nickel–iron battery
  - Nickel metal hydride battery
  - Low self-discharge NiMH battery
  - Nickel–zinc battery
- Organic radical battery
- Polymer-based battery
- Polysulfide bromide battery
- Potassium-ion battery
- Rechargeable alkaline battery



- Rechargeable fuel battery
- Silicon air battery
- Silver Batteries
  - Silver-zinc battery
  - Silver calcium battery
- Sodium Batteries
  - Sodium-ion battery
  - Sodium–sulphur battery
- Sugar Batteries
  - Sugar battery
  - Super iron battery
- Ultra-Battery



All of these technologies have their own particular advantages and disadvantages when it comes to energy density, working parameters, lifetime expectation, cycle rates, environmental characteristics, commercial availability and overall cost.

Please view additional Evolving Energy articles for specific information on each technology mentioned.