

Batteries in homes

- Store and release energy using reversible chemical reactions that are activated by an electrical current.
- Efficient over short periods but lose charge over hours and days.
- Because the chemicals inside batteries are often corrosive, they break down over time and may not last as long as some other storage technologies.
- Batteries in homes could be charged using rooftop solar panels, or from the grid when plenty of electricity is available. This could be used in evenings when demand for electricity is higher.



Powervault battery installed in household kitchen/utility room. Copyright Powervault.

Key facts

Technologies:

Lithium ion batteries.

Location:

Homes.

Readiness:

Demonstration stage

Environmental impacts, safety and resource use:

- Made using lithium a toxic element. Lithium mining it can be highly polluting to local environments. Lithium can be recycled.
- Due to the risk of fires, lithium ion batteries need to be produced to high quality standards to ensure safety.

Applications

- Enables more renewables
- Storage across hours & days
- Less network upgrades
- Use in remote areas
- Back-up power