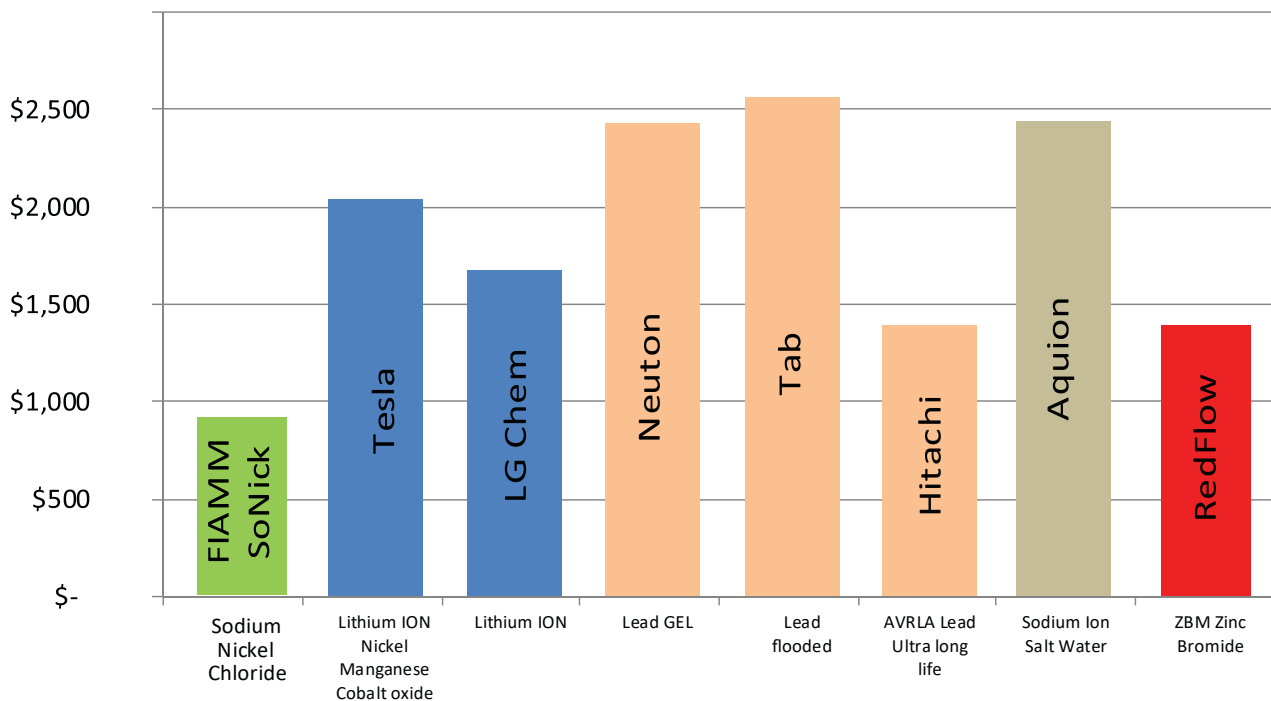


There is a large degree of misunderstanding about what different energy storage batteries can achieve. Different technologies may be more suited to different situations depending on energy supply needs.

The following pages are comparisons made showing different battery technology characteristics. Each representation uses a like for like comparison for similar capacity (~20 kWh)

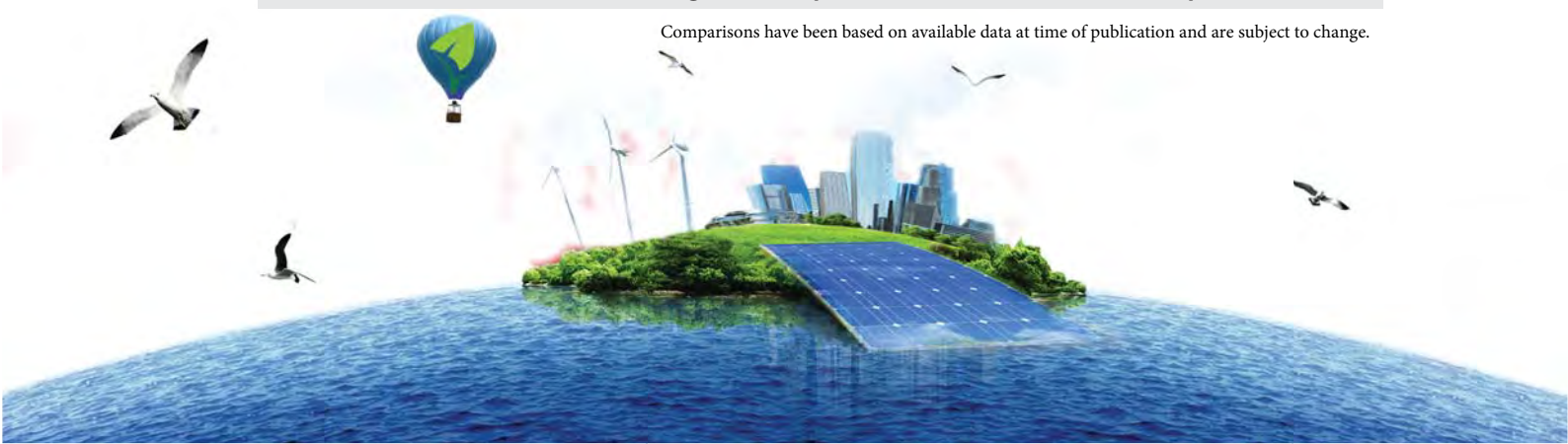
Comparison of Battery Cost per year over life expectancy for effective capacity equivalent of 5kWh including degradation



Total Battery Cost per year over life expectancy for 5kWh effective capacity factors taken into account

Battery cost Installation cost Maintenance costs	Depth of Discharge Round Trip Efficiency Degradation expected	Battery Capacity Expected Lifetime of battery Ambient temperature of 25°C
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Comparisons have been based on available data at time of publication and are subject to change.



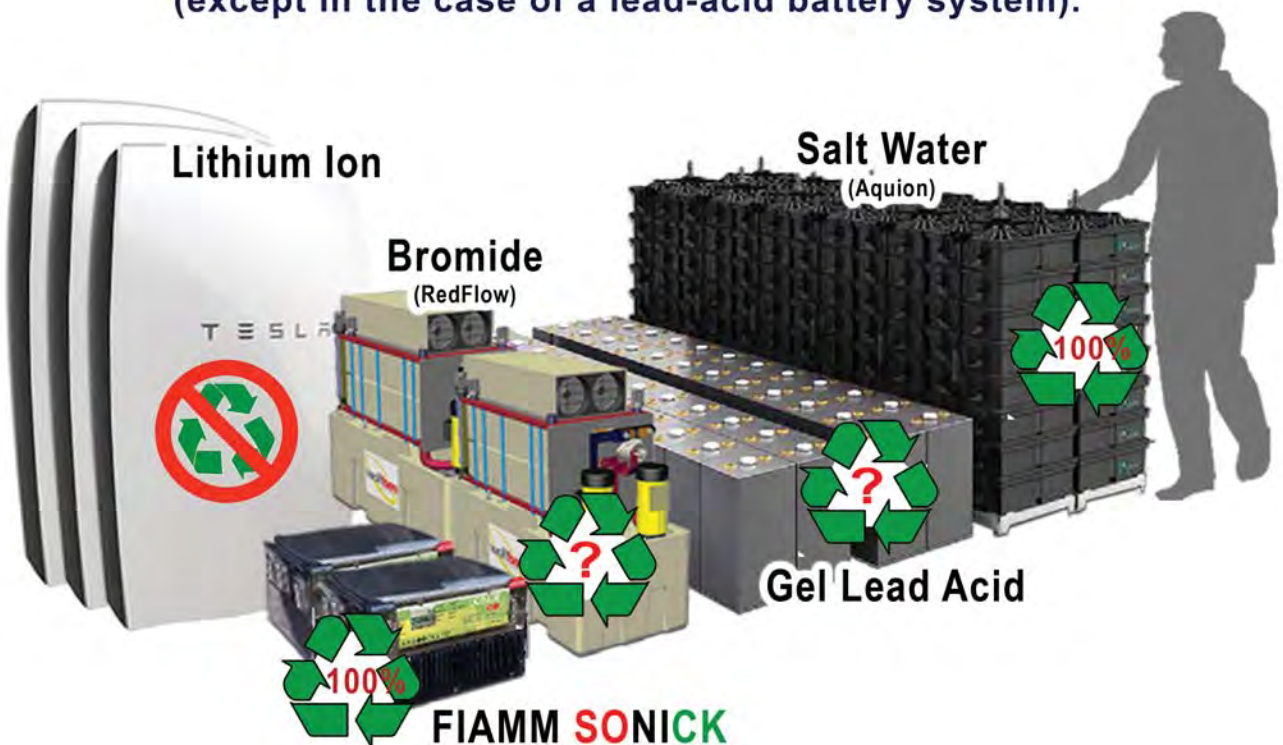
Although this shows the same nominal capacity drawdown power varies enormously between different batteries.

Do your homework before purchasing batteries.



Side-by-side size comparison of ~ 20 kWh battery application

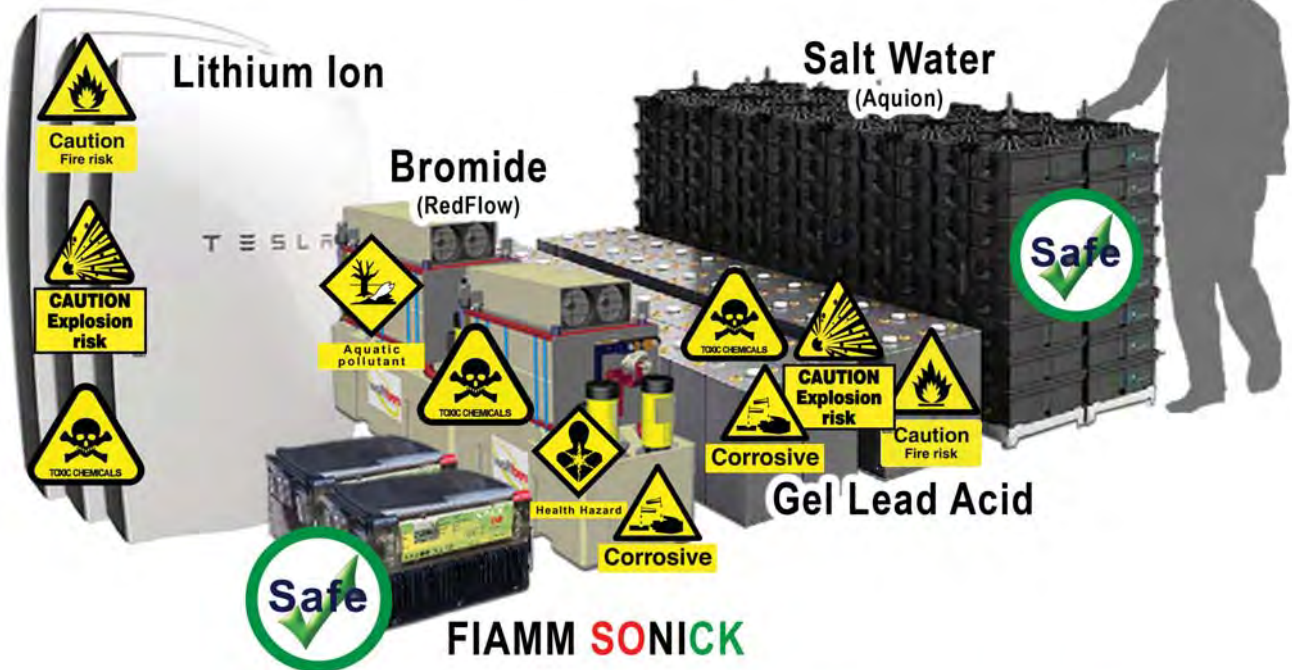
There is a lack of standards for battery storage system disposal and recycling (except in the case of a lead-acid battery system).



Side-by-side size comparison of recyclability of ~ 20 kWh battery application

Different battery technologies can catch fire or explode under some circumstances.

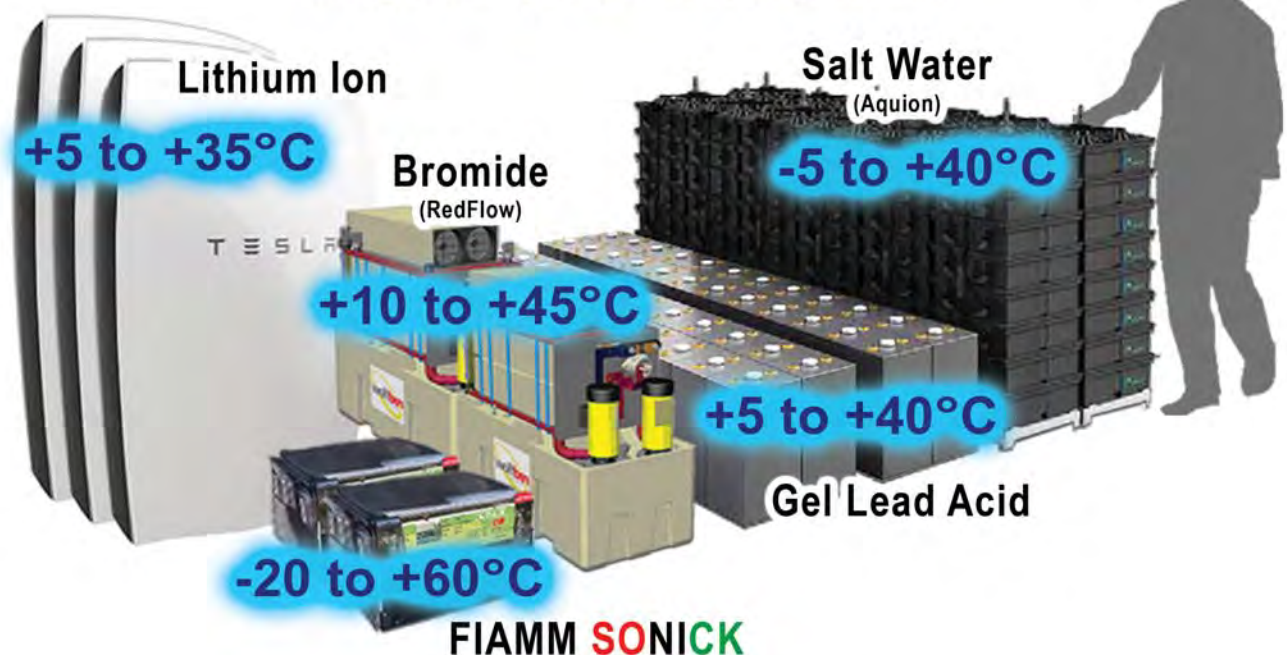
This can dictate where they can be housed for safety or can add ongoing running costs.



Side-by-side size comparison of safety of ~ 20 kWh battery application

Different battery technologies have different temperature operating ranges.

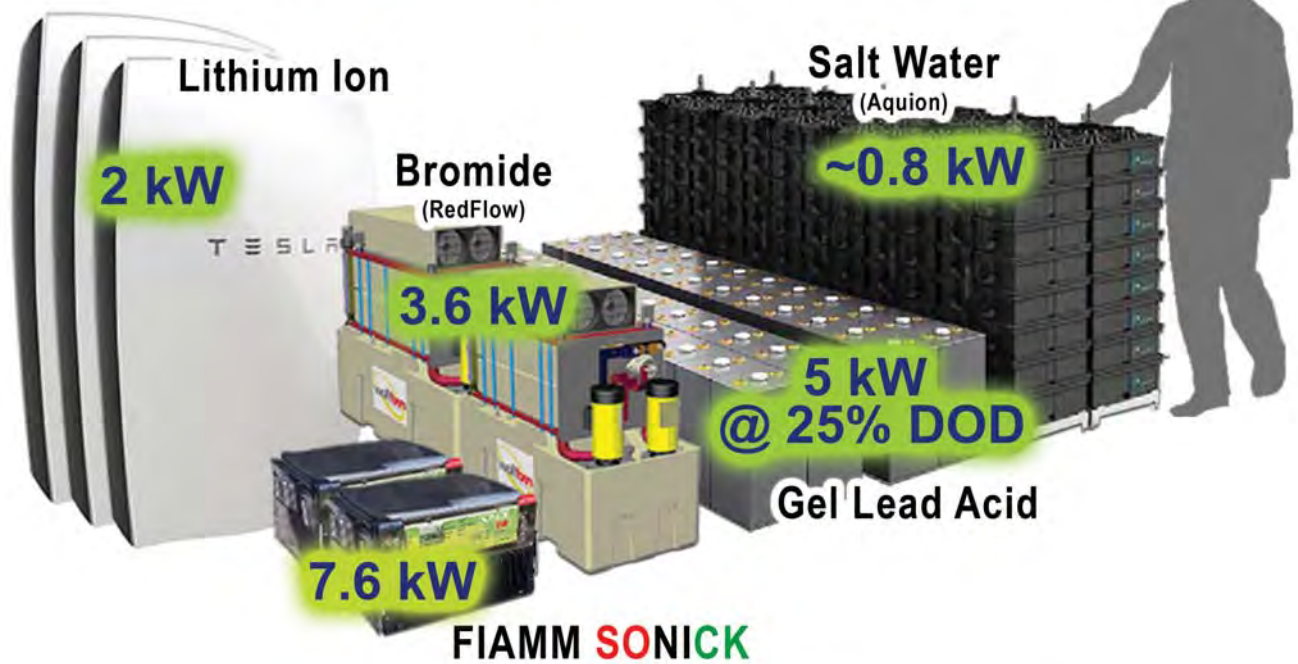
This means some technologies won't work on very hot or cold days and in fact may start to degrade if operated in hot temperatures.



Side-by-side size comparison of operating temperature of ~ 20 kWh battery application

Different battery technologies are able to instantaneously draw down different amounts of power.

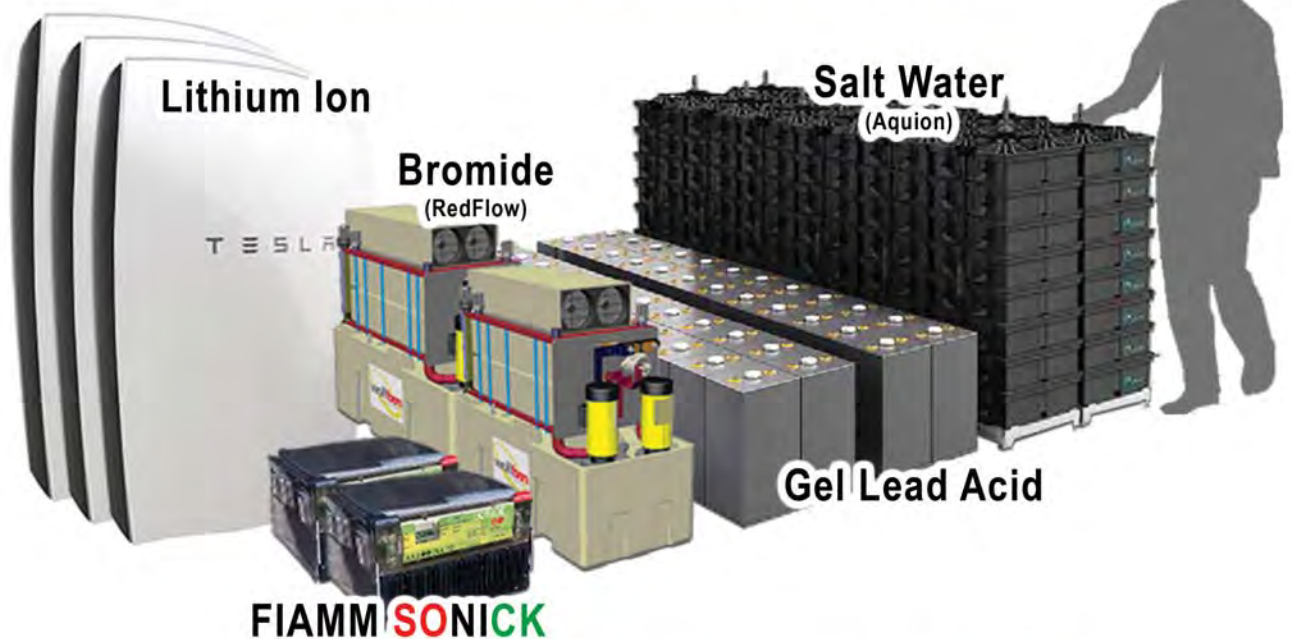
Some are extremely limited on what appliances they can run at any one time.



Side-by-side size comparison of draw-down power of ~ 20 kWh battery application

There is a large degree of misunderstanding about what battery storage can achieve.

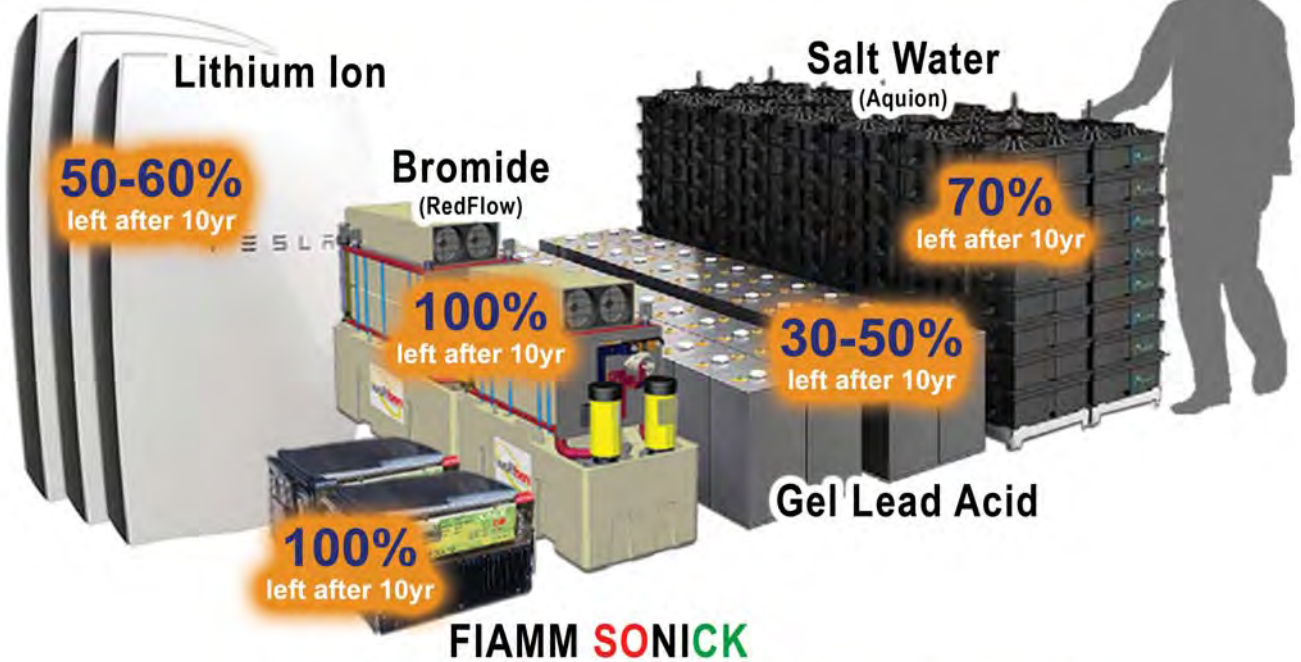
Different technologies are better suited for different households depending on their needs.



Side-by-side size comparison of ~ 20 kWh battery application

Some battery technologies degrade quite significantly over their expected lifetime.

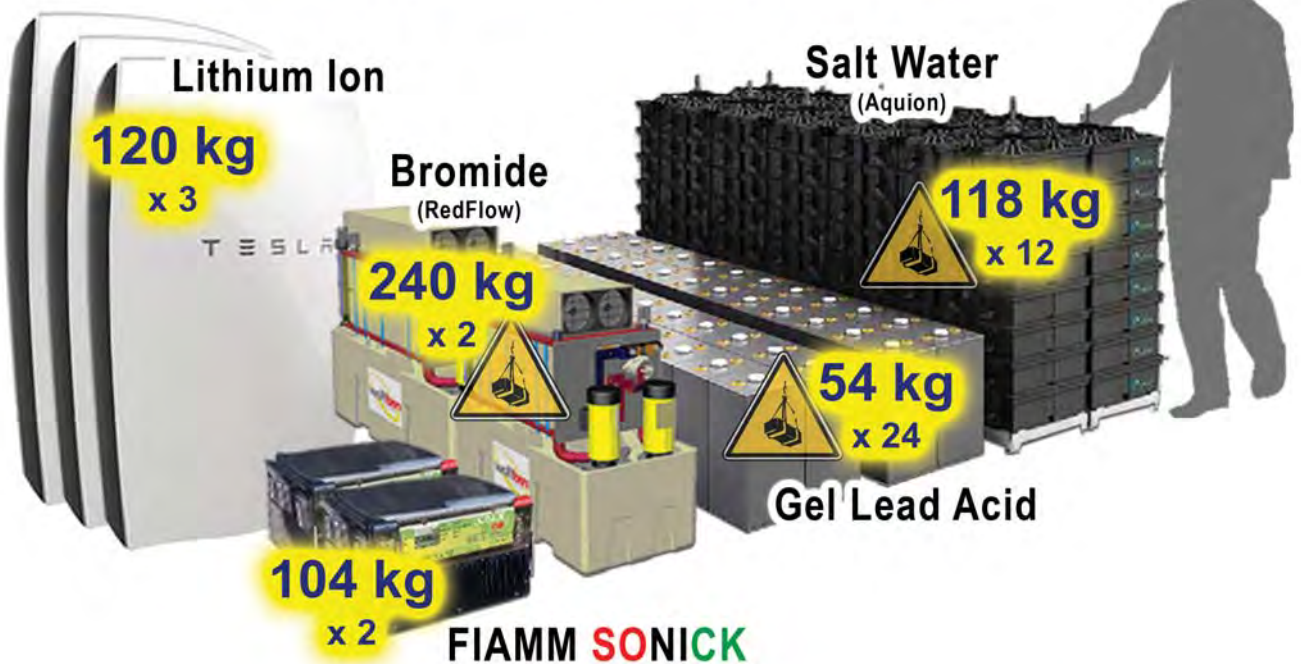
For many batteries degradation can accelerate dependant on usage and if ambient temperature isn't kept around 25°C.



Side-by-side size comparison of capacity after 10 years of ~ 20 kWh battery application

Different battery technologies are different weights as well as different sizes.

This may be relevant depending on where you want to store your battery.



Side-by-side size comparison of weights of ~ 20 kWh battery application



- + Nominal Voltage 48 VDC
- + Capacity 120 / 160 / 200 Ah
- + Energy 5,8 / 7,7 / 9,6 kWh

- NO Fire Risk
- NO degradation over life
- NO gas emissions
- NO dangerous materials
- NO environmental impact
- NO memory effect
- NO flammable materials
- Operating Temp (-20°C to +60°C)
- No fire/water flood reaction
- High energy density
- Extended cycle life
- NO maintenance

+ Main tech characteristics:

Operating Voltage Range	40 ÷ 54 VDC
Heat dissipation	107 / 110 / 117 W
Max Discharge Current	90 / 120 / 150 (200*) Amps
Bus Voltage Range	53 ÷ 60 VDC
Low Voltage Disconnect Fuse	200 Amps
Communication Port	RS485 or CAN / USB
Alarm Contact	230 VAC 2A
Front	496 mm (19.5 in)
Depth	558 mm (21.9 in)
Height	320 mm (12.6 in)
Weight	80/ 95/ 105 kg (177/ 210/ 2431b)



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