	Lead Acid	NiCad	NiMH	Zinc Air	Aluminium Air	Nickel Iron	Nickel Zinc	Sodium Sulphur	Zebra NaNiCl	LiCoO ₂	LiMn ₂ O ₄	Li-Ph	LiNiCoO ₂	LiNiO ₂	Li ₂ S ₈	Lithium Metal	Lithium Metal
Commercialisation	1881	1956	1990	1997		1901	1920	1960	1982	1992	1999				2003	2002	2003
Cell Voltage	2.0 V	1.2V	1.2V	1.15V	1.5V	1.2V	1.5V	2.1V	2.58V	3.7V	3.6V	3.2V			2.1V	3.0V	4.0V
Energy by Weight: Wh/Kg	30-40	40-60	30-80	200	220	50	60	110	100	90-140	160	150			300	150	200
Specific Power W/Kq	180	150	250 - 1000	80-140	30	100	300	150	150	760	1800	???				250	
Energy by Volume Wh/L	60-75	50-150	140-300	220			100		160	220 –350	270	250			400		500
Max discharge rate	10C		20C							40C	40C						
Recharge Time	>10 Hours	8 Hours	6 Hours							< 3 Hours	< 3 Hours						
Cycle Life Cycles	500 -800	2000	1500	200			600	1000	1000	1200	1200						
Self Discharge	3% - 4%	20%	30%			20% - 40%	<20%		Zero	5% - 10%	5% - 10%				< 5%		
per month																	
Temp Range °C		-40°C to +60°C	-20°C to +60°C							-20°C to +60°C	-20°C to +60°C						
Preferred Charge Method	Const Voltage	Const Current (- Delta V)	Dt/dt - (- Delta V) and Timer	NA	NA						Const Voltage Const Current						
Average Energy Cost \$/kWh	\$150	\$400-800	\$250	\$80		\$150-200	\$150-200		\$300	\$300	\$300	\$600 Target					
Generally energy density depends on whether optimised for capacity or power	Deteriorates with microcycles	Memory Effect	High self discharge rate Useful power down to 50% DOD	Primary Cell Can not accept Regen loads Uses replacable electrodes	Primary Cell Can not accept Regen loads Needs booster due to low specific power	Corrosion problems	Dendrite growth causes short cycle life	High Temp 350°C Damaged if temp < 200°C Discontinued	High Temp 270°C	Expensive Toxic materials Useful power down to 80% DOD	Useful power down to 80% DOD	No field experience	No field experience	No field experience	No field experience	No field experience	No field experience