


























































Technology characteristics

STORAGE
TECHNOLOGY

	Capital cost	Maintenance cost	Cycle life	Design flexibility (Energy/ power ratio)	Ease of recycling
Lithium-ion – LFP/Gr 	\$\$				
Lithium-ion – NMC/Gr 	\$\$				
Lead-acid – Flooded 	\$				
Lead-acid – Sealed 	\$				
Hybrid – Li-on/Lead 	\$\$				
Redox-flow – Vanadium 	\$\$\$				
Sodium-ion – Saltwater 	\$\$				
Sodium-ion – Non-aqueous 	\$\$				
Thermal – Ice battery 	\$				
KEY	<p>\$ < 200 \$/kWh</p> <p>\$\$ 200–500 \$/kWh</p> <p>\$\$\$ > 500 \$/kWh</p>	<p> No maintenance required</p> <p> Regular inspection</p> <p> Regular maintenance</p>	<p> < 500</p> <p> 500–3,000</p> <p> > 3,000</p>	<p> Fixed range</p> <p> Semi-flexible</p> <p> Fully flexible</p>	<p> Many, partly toxic components</p> <p> Few, partly toxic components</p> <p> Few, non-toxic components</p>

Technology characteristics based on industry standard and interview insights.

Find out more: <http://bit.ly/shell-foundation-energy-storage-report> and <https://doi.org/10.1016/J.ESD.2018.09.008>.

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