

# **What are the energy storage devices of the space station**





## Overview

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What are energy storage systems for space applications?

Energy storage systems for space applications have been critically reviewed and comprehensively assessed. Batteries, regenerative fuel cells, flywheels, capacitors, and thermal systems have been evaluated in the context of a space application framework.

Could space energy storage systems be derived from lunar and Martian resources?

As space exploration advances, energy systems derived from Lunar and Martian resources become ever-more important. Additively manufactured electrochemical devices and thermal wadis from regolith may be a central part of future space energy storage systems.

Are electrochemical devices a key part of future space energy storage systems?

Additively manufactured electrochemical devices and thermal wadis from regolith may be a central part of future space energy storage systems. As with many of the key technologies vital to present-day life, these developments for space application may reveal terrestrial utility.

What makes a space energy storage system unique?

Compared to their terrestrial counterparts, space energy storage systems must be able to withstand severe radiation, extreme cycling, intensive temperature fluctuations, and vacuum pressures; all within incredibly stringent specific energy and energy density parameters.



## What are the energy storage devices of the space station

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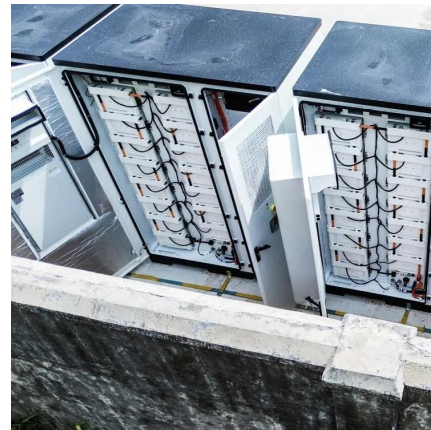


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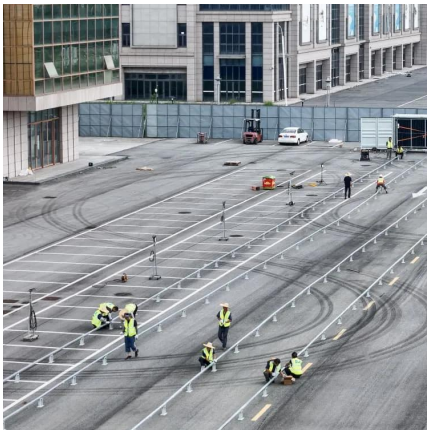
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