

# **Discharge price of flywheel energy storage**





## Overview

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Are flywheel energy storage systems economically feasible?

Equipment cost distribution for the flywheel energy storage systems. FESSs are used for short-duration power applications. Therefore, power capital cost (\$/kW) could be a useful parameter to compare the economic feasibility of energy storage systems for similar power applications.

What is the power rating of a flywheel energy storage system?

Utility-scale energy storage systems for stationary applications typically have power ratings of 1 MW or more . The largest flywheel energy storage is in New York, USA by Beacon Power with a power rating of 20 MW and 15 min discharge duration .

How much does a steel rotor flywheel cost?

The steel rotor flywheel has a lower capital cost and levelized cost of storage. The costs of composite and steel rotor flywheels are \$190 and \$146/MWh, respectively. Flywheel energy storage systems are increasingly being considered as a promising alternative to electro-chemical batteries for short-duration utility applications.

How can flywheels be more competitive to batteries?

The use of new materials and compact designs will increase the specific energy and energy density to make flywheels more competitive to batteries. Other opportunities are new applications in energy harvest, hybrid energy systems, and flywheel's secondary functionality apart from energy storage.



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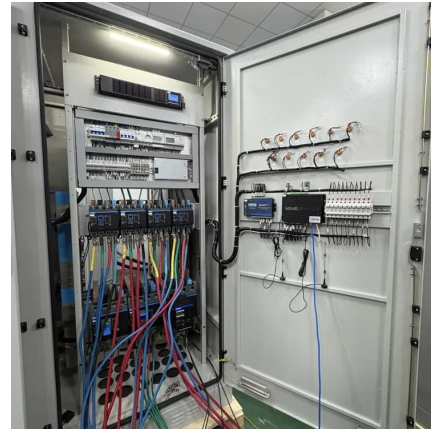
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## Flywheel Energy Storage System

Nov 8, 2018 · Flywheel Energy Storage System (FESS) An introduction to mechanical flywheel technology for dispatchable generation in the renewable energy market Russell Hanna



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