

# Spain makes flywheel energy storage





## Overview

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Torus is revolutionizing the energy storage landscape with its advanced Flywheel Energy Storage System (FESS), which offers a sustainable and efficient alternative to traditional chemical batteries. Where is a flywheel energy storage system located?

Source: Endesa, S.A.U. Another significant project is the installation of a flywheel energy storage system by Red Eléctrica de España (the transmission system operator (TSO) of Spain) in the Mácher 66 kV substation, located in the municipality of Tías on Lanzarote (Canary Islands).

Are flywheel energy storage systems cost-effective?

The levelized cost of storage (LCOS) for flywheels is expected to decrease as advances in materials science and manufacturing processes are made. Fig. 23 shows the projected properties of flywheel energy storage systems for 2030, indicating improvements in cost-effectiveness and performance.

Where did flywheels come from?

Their origins can be traced back to the potter's wheel, underscoring their longstanding role in human technological development. Beyond pumped hydroelectric storage, flywheels represent one of the most established technologies for mechanical energy storage based on rotational kinetic energy.

What is a flywheel energy storage system (fess)?

To solve this problem, London-based startup Levistor has developed an innovative Flywheel Energy Storage System (FESS), which acts as a kinetic battery. This technology stores energy from the grid during periods of low demand and releases it rapidly when an EV needs a quick charge. It can deliver 100 miles of range in just five minutes.



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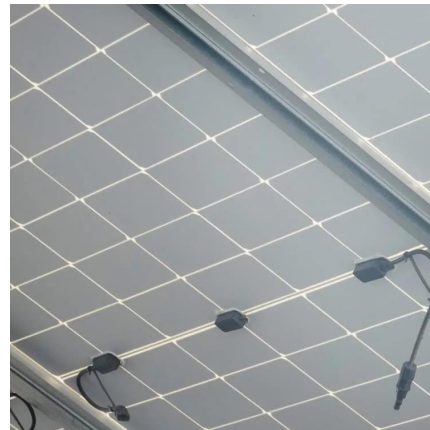


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Nov 15, 2025 · The growth of the Spain Megawatt Flywheel Energy Storage System Market is primarily driven by the country's increasing focus on renewable energy integration and grid ...

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May 1, 2015 · This paper presents an overview of the flywheel as a promising energy storage element. Electrical machines used with flywheels are ...



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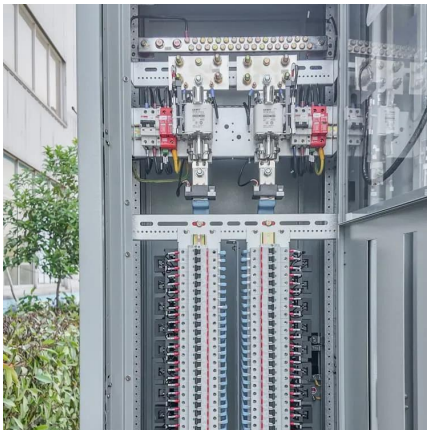
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Amber Kinetics is a leading designer of flywheel technology focused the energy storage needs of the ...

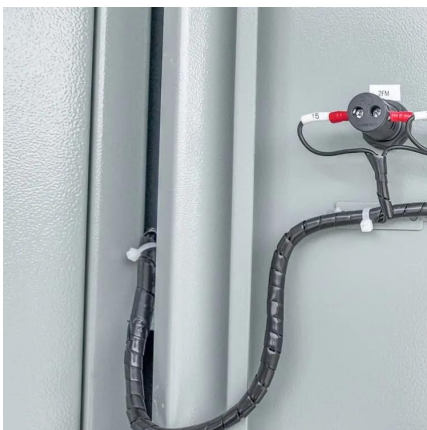


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## [Flywheel Energy Storage Market Statistics. 2025-2034 Report](#)

The flywheel energy storage market size crossed USD 1.3 billion in 2024 and is expected to register at a CAGR of 4.2% from 2025 to 2034, driven by rising demand for reliable UPS ...



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Dec 7, 2018 · This results in the storage of kinetic energy. When energy is required, the motor functions as a generator, because the flywheel ...



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6Wresearch actively monitors the Spain Flywheel Energy Storage Systems Market and publishes its comprehensive annual report, highlighting emerging trends, growth drivers, revenue ...



## [Technology: Flywheel Energy Storage](#)

Oct 30, 2024 · Summary of the storage process  
Flywheel Energy Storage Systems (FESS) rely on a mechanical working principle: An electric motor is used to spin a rotor of high inertia up to ...

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Oct 9, 2025 · This work was supported by the Regional Ministry of Science, University and Innovation of Community of Madrid, through the Project `Sizing and Control of Flywheel ...



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#### **eriyabv**

A review of energy storage types, applications and recent developments. S. Koohi-Fayegh, M.A. Rosen, in Journal of Energy Storage, 2020 2.4 Flywheel energy storage. Flywheel energy ...



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