

Investing in 5G flywheel energy storage







Overview

Why do we need advanced flywheel energy storage systems?

This brings us to the pressing need for innovative solutions such as Advanced Flywheel Energy Storage Systems (FESS), which offers a sustainable and efficient alternative. FESS offers unparalleled longevity and reliability, with lifespans exceeding 50,000 cycles and design lives of over 25 years.

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.

What is a flywheel & how does it work?

It also operates efficiently across a wide temperature range (-20° to 140°F). The Flywheel is constructed from 95% recyclable materials, emphasizing its commitment to sustainability. The system can store and rapidly deploy energy and can be used in residential and commercial settings. It helps reduce demand charges and lower overall power costs.

What is torus flywheel & how does it work?

In addition to its standalone capabilities, the Torus Flywheel can be integrated with renewable energy sources like solar and wind to enhance its utility as a clean and reliable energy storage solution. The startup emphasizes its products' 30 years of longevity to justify the higher cost of Flywheel technology.

What is advanced flywheel technology?

The Advanced Flywheel Technology utilizes a low-friction environment created by passive magnetic bearings. It reduces energy losses by up to 20 times



compared to conventional flywheel systems. This innovative approach enables larger module sizes, lowering costs and improving efficiency.

Is storage the key to the Green Energy Revolution?

As the technology for generating renewable energy has advanced at breakneck pace – almost tripling globally between 2011 and 2022 – one thing has become clear: our ability to tap into renewable power has outstripped our ability to store it. Storage is indispensable to the green energy revolution.



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Achieving the Promise of Low-Cost Long Duration Energy Storage

Executive Summary Long Duration Energy Storage (LDES) provides flexibility and reliability in a future decarbonized power system. A variety of mature and nascent LDES technologies hold ...

<u>Growth Trajectories in Energy Storage Flywheel:</u> <u>Industry Outlook ...</u>

The energy storage flywheel market, currently valued at \$236 million in 2025, is projected to experience robust growth, driven by the increasing demand for reliable and efficient energy ...



\$200 Million For Renewables-Friendly Flywheel Energy Storage

1 day ago. The latest example is the Illinois investment firm Magnetar Finance, which has just surged \$200 million in funding towards the flywheel energy storage innovator Torus Energy.



Flywheel Energy Storage Market Statistics. 2025-2034 Report

Utilities and governments are increasingly investing in smart grid infrastructure and microgrids, especially in remote and off-grid



areas. Flywheels provide fast-response, short-duration energy ...



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