

## **Georgia Power Flywheel Energy Storage**







## **Overview**

What is a flywheel-storage power system?

A flywheel-storage power system uses a flywheel for grid energy storage, (see Flywheel energy storage) and can be a comparatively small storage facility with a peak power of up to 20 MW. It typically is used to stabilize to some degree power grids, to help them stay on the grid frequency, and to serve as a short-term compensation storage.

How long does a flywheel energy storage system take?

Traditional storage systems can take up to five minutes to respond. A gridscale flywheel energy storage system is able to respond to grid operator control signal in seconds and able to absorb the power fluctuation for as long as 15 minutes. Flywheel storage has proven to be useful in trams.

Should this article be merged into flywheel energy storage?

It has been suggested that this article be merged into Flywheel energy storage. (Discuss) Proposed since March 2025. A flywheel-storage power system uses a flywheel for grid energy storage, (see Flywheel energy storage) and can be a comparatively small storage facility with a peak power of up to 20 MW.

What is a flywheel storage power plant?

In Ontario, Canada, Temporal Power Ltd. has operated a flywheel storage power plant since 2014. It consists of 10 flywheels made of steel. Each flywheel weighs four tons and is 2.5 meters high. The maximum rotational speed is 11,500 rpm. The maximum power is 2 MW. The system is used for frequency regulation.

How does a flywheel storage facility work?

These storage facilities consist of individual flywheels in a modular design. Energy up to 150 kWh can be absorbed or released per flywheel. Through



combinations of several such flywheel accumulators, which are individually housed in buried underground vacuum tanks, a total power of up to several tens of MWh can be achieved.

Why do battery storage power stations use flywheels?

Sometimes battery storage power stations are built with flywheel storage power systems in order to conserve battery power. Flywheels can handle rapid fluctuations better. In Stephentown, New York, Beacon Power operates in a flywheel storage power plant with 200 flywheels of 25 kWh capacity and 100 kW of power.



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