

Target market

Recuperation in crane and rail technology

Our systems boost the company in the fields of rail transport and crane technology by not allowing energy to be dissipated by braking and lifting, but temporarily storing it within seconds and delivering it to the next lifting and starting process.



Load Management Industry

In particular, enterprises in the heavy industrial sector have to pay high costs for the preparation of operational peaks, if not even for the network construction due to high energy requirements.



Our flywheel energy storage systems are suitable for cushioning or eliminating these negative effects of electricity demand by capturing large loads in the short term and thus significantly relieving the power grid.

Load management solar/wind farms

Our technology can help solve the biggest challenge of current and future development in the energy sector of renewable energy development.

Fluctuating and dynamic energy generation through changeable weather conditions and constantly increasing energy demand pushes the power grid to its limits.

The KEST GmbH offers solutions that lead to an environmentally friendly use of energy without compromising on the consumer. We create intelligent support of wind and solar parks in the form of flywheel energy storage or battery flywheel combinations with extensive storage expertise for all applications.



Future-proof and feasible solutions for energy from 100% renewable resources.

Target market

E-Mobility

E-mobility is still relatively rarely used. This is shown by the so far little use of e-cars and especially the almost non-existent expansion of public passenger transportation in the form of e-buses.

A lack of fast-charging station infrastructure and immature approaches to e-bus charging techniques are the biggest obstacles to widespread use.

With the energy technology of KEST GmbH, however, new possibilities of e-mobility supply will be realized. Especially in the field of fast charging stations, a network-friendly and above all frequency-flexible infrastructure can be set up, which will provide fast and comfortable charging in private and public transportation at any location.



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KEST
kinetic energy storage

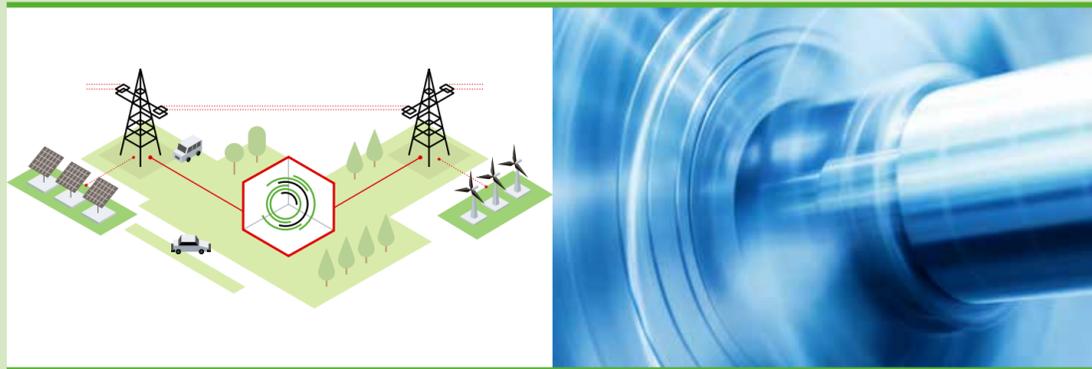
dynamic future

Our KEST flywheel energy storage technology is characterized by clear advantages:

- Economically priced and economical to maintain
- Burst secure with simultaneous high energetic use
- Scalability and customization through compact container solution
- Cycle steadiness > 1 million cycles

With our patented technology for the production of a flexible and burstable flywheel body we are the first company in the world offering high-energy flywheel storage technology safe and cost-effective.

At the same time, our flywheel energy storage system does not compromise on performance and capacity, which makes it an important alternative to other power storage methods in many areas.



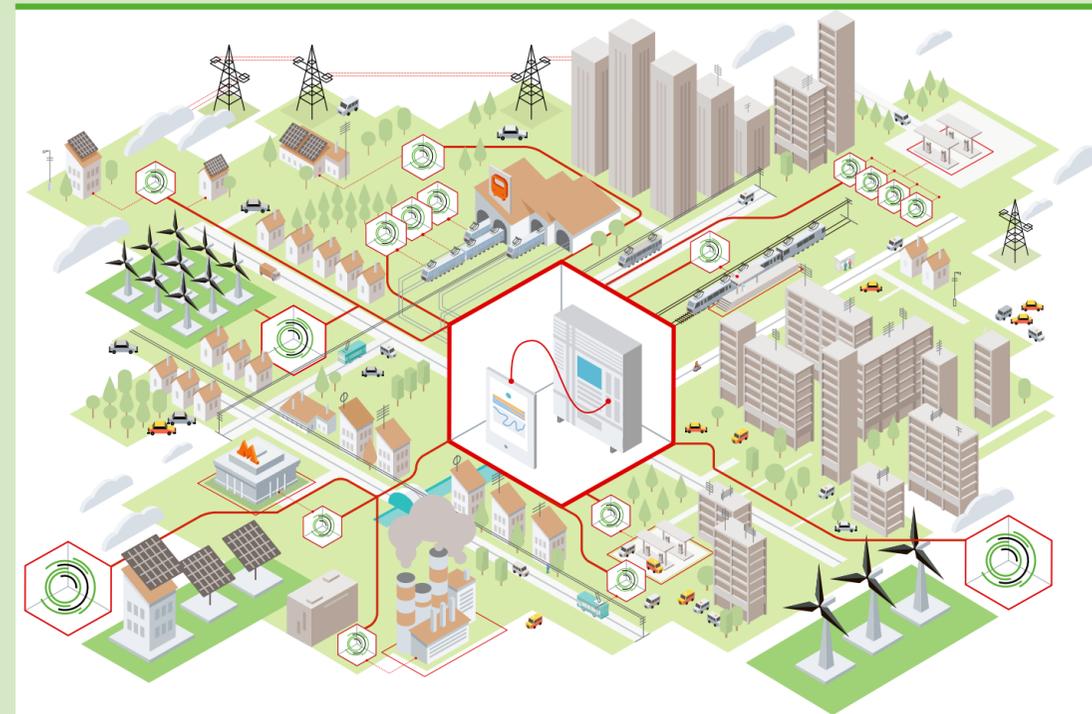
Our technology is ideally suited for high power up to 1 MW per unit with response times in the millisecond range. With a storage capacity of up to 80 kWh per unit, our technology is particularly interesting for companies in the heavy industrial sector.

Thanks to our flexible technology KEST flywheel energy storage is capable to be combined with state-of-the-art battery technology to achieve better results in virtual power plants and in the management of energy parks.

The principle of “virtual power plant” is the gold standard of tomorrow

The consequences of the digitization of the economy and society provoke the current energy distribution system with challenges:

- Faster production
- Higher energy requirements
- Dynamic and variable energy demand



At the same time, the successive expansion of renewable energies will burden the electricity grid significantly more – relatively unpredictable and changeable weather conditions create a fluctuating flow of energy towards the consumer.

The decentralized principle of the virtual power plant can adapt to these circumstances and thus offers efficient method of energy management through digital distribution structures.

Together with our flywheel energy storage and our state-of-the-art smart controller technology, we are the perfect partner for the energy management of tomorrow.

KEST GmbH is a innovative energy technology company

With its specialization in energy storage technology in the form of kinetic flywheel energy storage systems KEST GmbH can rely on more than 60 years of development experience in plant construction to design tomorrow’s advanced flywheel energy storage technologies.

Since its foundation in June 2016 KEST GmbH has been active in Germany in order to combine innovative energy storage solutions with social and economic developments.

The KEST GmbH distinguishes itself by a wide range of solution sets for different areas of the power requirement:

- Load management
- Fast charging technology for e-mobility
- Electricity management for virtual power plants
- Recuperation in rail and crane technology



Our goals

- Create perspective, take advantage of opportunities!
- Think energy, do energy!
- Keep an eye on the future!
- Not just visionaries, but doers!

For us, energy storage is not just a part of the energy industry.

For us, energy storage is a responsibility to society and the future.