

Turbo Storage Provides Fresh Impetus to Electricity Charging Innovation at the airport: Vienna Airport and Wien Energie put the world's very first flywheel energy storage system into operation, enabling rapid charging of electric vehicles

Put the time involved in waiting for your loved ones to good use and charge your electric vehicle: the Viennese utility company Wien Energie is testing the world's first electric charging station applying the Chakratec flywheel energy storage technology in collaboration with Vienna Airport. This is taking place at the short-term parking lot K3 on the arrivals level. Although the network connection output is only 40 kilowatts, an electric vehicle can be filled with electricity at this charging station with an output of up to 100 kilowatts and thus be fully charged in only 20 minutes. Such a performance is made possible by the innovative kinetic energy storage system.

“The conversion to electromobility is a crucial component of a successful mobility turnaround. However, it also changes the demands imposed on our energy systems. We require innovations such as this turbo storage facility. In this way, we can also offer high-speed charging stations in places where only a low network connection output exists”, states Michael Strebl, Managing Director of Wien Energie.

“Sustainability and energy efficiency are of immense importance to Vienna Airport. For this reason, it goes without saying that we will be available as a space for innovations. By putting the Chakratec flywheel energy storage system into operation, we offer a cutting-edge technology to our passengers and visitors enabling the rapid charging of electric vehicles”, explain Günther Ofner and Mag. Julian Jäger, Members of the Management Board of Flughafen Wien AG.

This technological marvel works like a gyroscope

Electricity is turned into motion and motion becomes electricity again. The high-speed storage unit enables output buffering on the basis of a patented system. Ten magnetic flywheel energy storage units stocked in a vacuum function like a gyroscope. Each of them weighs 250 kilogrammes and accelerates up to a speed of up to 18,000 revolutions per minute. The gyrating mass is slowed down in the discharging process and the kinetic energy is converted to electrical energy with the help of a generator. The electric vehicles are charged with this electrical energy.

The entire cycle is 100% sustainable. No scarce raw materials are needed to produce the storage system, which was developed by the Israeli startup Chakratec in cooperation with the Viennese utility company Wien Energie.

The new electric filling station boasts three different charging points of which two can be used at the same time. The project represents test operations which are scheduled to continue until the end of this year. It is planned to roll out the new high-speed charging stations to other locations in Vienna and its surroundings.

Energy-efficient environmental management at Vienna Airport

Flughafen Wien AG is committed to a careful and conscious interaction with the environment. Its declared objective is to continuously reduce energy consumption and operate in a CO₂ neutral manner in the medium term. Since 2012, Vienna Airport has cut its overall energy needs by 26.7%. CO₂ emissions were even decreased by close to two-thirds.

The energy-saving measures successfully implemented by Flughafen Wien AG in recent years include the changeover of lighting systems to LED in all areas of the company, the gradual conversion of the vehicle fleet to alternative drive systems, the upgrading of existing refrigeration systems and transformer stations and the setting up of a car pooling platform for employees. A further focus is on expanding sustainable energy resources. Four new projects will expand the total area of the photovoltaic facilities on the airport premises to more than 20,000 m² by the end of the year.

Further information on the issue of energy and sustainability management can be found in the current Sustainability Report of Flughafen Wien AG at <https://www.viennaairport.com/nachhaltigkeitsbericht>.



Contact:

Press Office of Wien Energie GmbH

Boris Kaspar, Company Spokesman
Tel.: (+43-1-) 4004-74201
E-mail: boris.kaspar@wienenergie.at
Website: www.wienenergie.at

Press Office of Flughafen Wien AG

Peter Kleemann, Company Spokesman
Tel.: (+43-1-) 7007-23000
E-mail: p.kleemann@viennaairport.com
Website: www.viennaairport.com

 www.facebook.com/flughafenwien  [PeterKleemannVIE](https://twitter.com/PeterKleemannVIE)