Mutual Press Release

SWM Markets Kinetic Energy Storage Unit for the First Time

Munich/Jülich, 2 November 2015. SWM [Munich Municipal Utilities, Stadtwerke München] announces the ground-breaking approval of its first kinetic energy storage unit within their virtual power plant for use in commercial operation. The unit consists of a flywheel-based 'DuraStor' accumulator from the STORNETIC technology firm in Jülich. In view of rapidly-changing conditions in the electricity market, energy storage units are universally considered an important tool in the sustainable stabilisation of electrical networks.

'The energy storage unit market is introducing exciting new features at the present time', says Dr Markus Henle, Project Manager for the virtual power plant at SWM. 'We are marketing the STORNETIC energy storage unit as part of our virtual power plant, where it is used, among other things, to balance energy requirements and equalise forecast deviations arising during renewable energy generation. The entire field of energy storage is acquiring increasingly greater significance. In today's rapidly evolving electricity market, it is becoming increasingly vital to ensure a reliable and stable energy supply. Energy storage units are playing an increasingly decisive role in fulfilling this need.'

The DuraStor storage unit employed in this case generates up to 600 kVA at approximately 100 kWh. The unit consists of 28 flywheels which can be accelerated to velocities of up to 45,000 rpms. The accumulator is purely kinetic, i.e., it functions entirely without the use of chemicals. Instead, electrical energy is stored as mechanical energy by means of an accelerating rotor. During recycling, the motor acts as a generator, producing electrical energy by decelerating the rotor.

'We take pride in having been the first power plant in the world to place an energy storage unit in operation based on multiple flywheels', continues STORNETIC Manager Dr Rainer vor dem Esche. 'This approach combines the advantages of mechanical energy storage units, such as sturdiness and endurance, with the advantages of container solutions such as modularity, rapid installation and mobility.'

SWM virtual power plant is prepared for the integration of additional installations

The SWM virtual power plant (‘M-Partner Power’, ‘M-Partnerkraft’) enables citizens and businesses to participate in the energy supply of the future. SWM inaugurated its own installation as a pilot project in 2010, and then expanded it to accommodate third-party installations. It currently combines installations based on the most diverse energy sources, such as bioenergy as well as wind, solar and hydroelectric energy. It also integrates controllable meters. M-Partner Power enables SWM professional plant operators to access energy markets using new, lucrative strategies in the marketing of its electricity while maximising the profitability of their undertakings. M-Partner Power is prepared for the integration of additional interested parties.

Virtual power plant as a major component in successful energy system transformation

Following the expansion offensive in renewable energies, the SWM virtual power plant promises to become a major component of successful SWM energy system transformation, partly because it enables reasonable access to electrical networks by a variety of generation units and consumers while keeping energy production within requirements. The flexible, controllable output of the virtual power plant is a major step towards the successful integration of renewable energies into the electrical network and, therefore, successful energy system transformation. For further information on M-Partner Power, please visit www.swm.de/vkw.

Munich Municipal Utilities (SWM)
SWM stands for the municipal utility and services undertakings of the state capital of Munich. SWM is considered one of the largest energy and infrastructural undertakings in Germany. For decades, SWM has stood for safe, resource-saving energy supply (electricity, natural gas, long-distance heating) and fresh water from the Bavarian Alpine upland. The MVG transport subsidiary is responsible for underground, buses and trams and is therefore a major component of the Munich public transport network. The SWM, with its 18 indoor and open air swimming pools, is one of the most modern bathing landscapes in Germany. With economical products and client-oriented services, the SWM makes a major contribution to the Munich municipal recreational countryside and, therefore, to the economic power and quality of living of both the city of Munich and the surrounding region. Many SWM products are available all over the country. SWM employs approximately 9,700 men and women. The company turnover was approximately 6.1 billion euro in the 2014 financial period.

STORNETIC is a high-tech undertaking which develops, manufactures and markets energy storage systems. The introduction of the flywheel-based energy storage unit enables STORNETIC clients to transform electrical energy into rotation energy and store it. The STORNETIC GmbH registered offices are in Jülich.

Press contacts

Stadtwerke München
Bettina Hess
Spokeswoman
Tel.: +49 (0)89/23 61-50 42
Mail: presse@swm.de

STORNETIC GmbH
Tobias Gottwald
Spokesman
Tel.: +49 (0)2461/65-308
Mail: info@stornetic.com