

Wendelstein community power plant, N-ERGIE and AREVA are working together to install a new type of battery storage system

Innovation in Middle Franconia: In 2017 a new type of battery storage system is being installed in Wendelstein, south of Nuremberg. The Gemeindewerke Wendelstein Bürgerkraftwerk GmbH, a subsidiary company of local utilities Gemeindewerke Wendelstein and Nuremberg based N-ERGIE Regenerativ GmbH, as well as Erlangen-based energy specialist AREVA, will be constructing the plant in the Wendelstein network area in the coming months. Two fully air-conditioned containers will house the batteries. Theoretically, the storage capacity is sufficient to provide 100 average households with a day's worth of power. The storage system consists of used battery modules from electric cars.

Within the scope of the project, specialists from energy companies, plant construction and the automotive industry will work together. Integrating complete battery packs from electric vehicles into a stationary unit is uncharted territory. AREVA has developed the technical concept and input and output controls. N-ERGIE will use the plant to provide so-called primary control. This capacity is needed in the event of unexpected fluctuations in energy input or energy demand in order to ensure a reliable supply at all times. Integration into the power grid will be accomplished using the 20kV network connection in the "Am Kohlschlag" industrial estate in Wendelstein.

"We are proud to be forerunners of the energy turnaround in such an innovative project here in Wendelstein. The partners come from Middle Franconia and they demonstrate the wealth of knowhow that we have at our disposal in the region", said Werner Langhans, mayor of Markt Wendelstein. He is pleased that the investment in the Gemeindewerke Wendelstein community power plant can be supplied by the citizens of Wendelstein.

"The development of weather-dependent renewable energy sources such as sun and wind necessitate new types of storage technologies. Key to this is that batteries have the potential to balance out small to medium-sized fluctuations in the distribution network", stressed Stefan Mull, the responsible project manager from N-ERGIE.

"The storage system strengthens the regional value chain and is a significant contribution to the reinforcement of decentralized approaches to the future energy supply", stated Rainer Kleedörfer N-ERGIE's director responsible for innovation management.

"AREVA has vast experience in battery storage systems for emergency power supplies in large power stations. Using this as a basis, we are working with our partners to develop innovative storage solutions for the energy policy turnaround" explained Jochen Lorz, the head of industry sales for AREVA.

The 75 square meter footprint of the two containers housing the battery equipment contains around 100 battery modules. The maximum input and output capacity is 500 kilowatts; the storage capacity on startup is about one megawatt-hour.



From left: Stefan Mull (N-Ergie AG- Corporate development), Herbert Wild (Manager of the Gemeindewerke Wendelstein plant), Werner Langhans (Mayor of Markt Wendelstein), Dr. Jochen Lorz (AREVA GmbH- Head of industry sales)