Smart Meters – a Step towards Smart Grids

The growing number of electric cars in the future offers the chance to further increase power generation from renewables with the help of automobile batteries. Ideally, the goal is to charge electric vehicles during times when output from renewable power sources – for example from wind power – is high and demand is low. During periods of peak consumption, power could even be fed back into the grid from parked electrical cars.

Therefore, within the framework of the fleet test in cooperation with Volkswagen or the e-mobility projects in the Harz region, E.ON is scientifically and practically working on solutions to make this vision become a reality.

The biggest challenge in this process is the establishment of smart power grids. They are not only important for e-mobility but also facilitate the permanently increasing use of power from renewables and small decentralized systems. Smart meters are the central interface between customers and smart grids.

As an international energy company, E.ON already has gained experience with smart meters in several markets. Today, almost one million smart meters are installed at E.ON in Sweden; 600,000 more smart meters will be added in Spain by 2014.

Since the beginning of 2009 E.ON has been testing the smart meter technology with 10,000 customers in Bavaria. An entire town was equipped with the new metering technology. Currently, the Munich based E.ON Metering is preparing the market introduction of the smart meters.

Smart meters make power consumption transparent and thus detect ways to save energy in households.