Innovative e-Mobility Solutions for Municipal Utilities

Zenner and GP Joule Connect bring new e-mobility solutions for municipal utilities and energy providers into the market. Already integrated is the transmission of data via a smart meter gateway, which is partly required from 2021.

In order to integrate holistic e-mobility solutions into modern district and smart city concepts, Zenner and GP Joule Connect have developed a package that combines CLS (Controlled Local Systems) and LoRaWAN technology with mobility solutions. (copyright: GP Joule)

Municipal utilities (known as Stadtwerke) also want to position themselves as service providers for cities, districts or regional companies in the domain of electromobility. Sebastian Heß, Managing Director of Zenner Hessware GmbH: "The entry into electromobility has several advantages: In addition to income from electricity sales, for

example, the smart operation of the charging infrastructure guarantees secure network control through the monitoring and control of charging points." An important aspect, as it is becoming more and more important to monitor load conditions and to switch charging stations intelligently. With CLS management from Zenner Hessware, this is now possible under regulatory compliance.

In order to integrate holistic e-mobility solutions into modern district and smart city concepts, Zenner and GP Joule Connect have developed a package that combines the CLS and LoRaWAN technology with mobility solutions. An example of this is data transmission via a smart meter gateway.

Smart meter gateway as a secure communication channel

Starting in 2021, it will be mandatory for charging stations with consumption of over 6,000 kWh to use Smart Meter Gateways (SMGW). Charging points must then be controlled in accordance with the requirements of the Federal Office for Information Security (BSI).

However, the advantages of Section 14a of the Energy Industry Act (EnWG) can also be exploited in this way. This promises the operators of controllable consumer devices a reduced network fee. The prerequisite for this is the role as an active EMT at Zenner Hessware. This provides an integrated solution for the control of charging infrastructure including data transmission via SMGW.

E-mobility as a smart city solution

In addition, Zenner has developed a LoRaWAN-supported smart parking solution that shows the actual occupancy of the parking area in front of a charging station. It is true that operators of charging stations can usually determine whether an electric vehicle is being charged. However, it remains unclear whether a supposedly available e-parking space might actually be occupied by a non e-mobility vehicle.

By combining data about the operating status of the charging station and the availability of the parking space on a single platform, real-time reliable information about free and functional parking spaces for electric vehicles can be made available via a smart app.

About GP JOULE

Under the motto "TRUST YOUR ENERGY" and driven by the belief that 100% renewable energy is a feasible option, GP JOULE has shown itself to be an innovative and universal partner to businesses, local authorities and investors ever since it was founded in 2009. At sites in Germany and North America, a workforce of more than 200 develops energy and operating concepts for the future-oriented use of sun, wind, biomass and energy storage systems. GP JOULE has already made sector cross-linkage possible with its solutions in areas such as power-to-gas technology, municipal heat supply and electric mobility. CONNECT offers a 360-degree approach for this purpose that is built around its core products – power and charging infrastructure.

About Minol Zenner Group

Precise measurement technology, housing industry services and future-proof IoT solutions. Under the banner of Minol Zenner Group the 3rd generation family-run group of companies offers unparalleled device technology, billing services and IoT solutions for global markets. As the world's leading service provider for the real estate and utilities sector, it employs 3,900 people in more than 40 countries with subsidiaries and other sales partners in over 100 countries. The group owns and operates the largest private IoT network in Europe utilising LoRaWAN© technology and is an active contributing member of the LoRa Alliance™