SIEMENS

Light+Building 2020, Hall 11, Booth B56

Siemens enables holistic energy data analysis in buildings

- **For the first time, new electrical installation devices combine protection and measurement functions in a single unit**
- **The latest energy monitoring software can now be fully integrated into the Desigo CC building management system**
- **New Sentron "powermind" app allows cloud-based energy data analysis**

At this year's Light+Building trade show, Siemens Smart Infrastructure will show the first energy management solution that holistically captures energy data in buildings. It collects data all the way to the final circuit without any additional wiring or space requirements. All electrical data – from the power feed-in to the socket outlet – can then be seamlessly integrated into building management systems and analyzed by cloud-based applications. This makes the electrical infrastructure an integral part of smart buildings that are connected via the Internet of Things (IoT). Operators and users gain maximum transparency over their energy flows and benefit from end-to-end digitalization.

"The days of electricity flowing through cables unobserved are numbered. With digitalization, it will be possible in the future to not only fully monitor electricity, but also to control it flexibly and use it much more efficiently. We already provide the basis for this with our technologies," said Andreas Matthé, CEO of Low Voltage Products, Siemens Smart Infrastructure.

Digitalization of electrical installations

With the new 5SL6 miniature circuit breakers (MCB) and 5SV6 arc fault detection devices (AFDD) from the Sentron portfolio, Siemens brings digitalization to electrical installations. The compact devices combine overload, short circuit and arc fault

protection with integrated communication and measuring functions in just one modular width (MW). They can measure electrical values such as current and voltage, as well as temperature and switching states for individual circuits and automatically identify error causes. Operators and electrical installers can quickly recognize loads with increased power consumption, as well as anomalies and disruptions in the electrical installation and intervene early on. All the data can be visualized on a PC, tablet or smartphone and connected to analytics tools and digital environments through the new 7KN Powercenter 1000 gateway.

Integrated building and energy management

The updated Sentron "powermanager" power monitoring software consolidates building and energy management in one single platform. Version 4.x can be used as a stand-alone software or, for the first time, integrated into the Siemens Desigo CC building management system as an expansion module. This allows all energy distribution and building automation systems to be operated, monitored and managed from a single system. Sentron "powermanager" analyzes electrical parameters such as voltage, currents and power quality. Especially, small and medium-sized businesses benefit from the easy-to-use software. They can easily identify potential savings or system errors, reduce energy costs and cut CO_2 emissions. All analyses can be shown in flexibly configurable dashboards or report templates and assigned to cost centers. Users are automatically notified by e-mail or text messages (SMS) of irregularities in energy consumption or unusual system behavior.

In addition, integration in Desigo CC enables regression analyses. By comparing consumption data with information from presence detectors, for example, it can be determined if energy for lighting, heating or air conditioning is being used in temporarily unoccupied parts of the building. If electrical systems such as elevators or escalators consume an unusually large amount of electricity, this can be similarly compared with the maintenance intervals defined in the building management. If necessary, these must be shortened to avoid expensive repairs and breakdowns.

Real-time energy data analysis via app

The new Sentron "powermind" app analyzes energy data directly in MindSphere, the cloud-based, open IoT operating system from Siemens. Users see a real-time overview of current energy consumption and trends over time – both for entire

systems as well as individual electrical loads. The app is easy to use and requires no specific IT skills, allowing even inexperienced users to enter the world of digital energy management.

This press release as well as press photos can be found at www.sie.ag/2uJrF1t

For more information on Siemens Smart Infrastructure, see www.siemens.com/smart-infrastructure

For more information on power monitoring, see www.siemens.com/powermonitoring

For more information on protection devices for electrical installations, see www.siemens.com/protection-concept

For more information on Light+Building 2020, see: www.siemens.com/presse/lightbuilding-2020

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Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. SI creates environments that care. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland, and has around 72,000 employees worldwide.

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed company Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy, Siemens is also a world-leading supplier of medical technology and digital healthcare services as well as environmentally friendly solutions for onshore and offshore wind power generation. In fiscal 2019, which ended on September 30, 2019, Siemens generated revenue of €86.8 billion and net income of €5.6 billion. At the end of September 2019, the company had around 385,000 employees worldwide. Further information is available on the Internet at www.siemens.com.