SIEMENS

Press

Zug (Switzerland), June 14, 2023

Siemens presents software to actively manage low-voltage grids

- **LV Insights X software key to accelerating energy transition and path to net zero**
- **Future-proof software to increase grid capacity in existing power networks**
- **Distribution grid operators can set up digital twin of low-voltage grids**
- **Reduced outage times by up to 30 percent, increased insights on critical segments, capacity and limit violations of power grid**
- **LV Insights X is part of the Siemens Xcelerator portfolio**

Siemens is taking another important step to accelerate the energy transition: As an industry first, the company today presented its newly developed software for low-voltage grids. LV Insights X software, part of the Siemens Xcelerator portfolio, enables distribution grid operators (DSO) to tackle their most pressing challenge: the need to significantly increase grid capacity while grids are already pushed to their limits by the fast increase of decentralized renewable energy infeed and additional consumers such as EV chargers or heat pumps. To avoid power grids from becoming the bottleneck of the energy transition, utilities urgently need to increase their grid capacity and actively manage the low-voltage grid.

LV Insights X empowers grid operators to gain full transparency over the low-voltage level of the grid, reduce outage times by up to 30 percent and increase grid capacity by identifying critical segments. The software lets DSOs create and manage complete low-voltage grid models automatically and with significantly reduced effort, and leverage data to make more effective decisions. Ultimately, they can create a digital twin of the distribution grid with already existing data. The new software paves the way for adaptable and scalable low-voltage grid management.

Siemens AG
Communications
Head: Lynette Jackson

Werner-von-Siemens-Strasse 1
80333 Munich
Germany

According to McKinsey, global electricity demand is rising significantly and is expected to triple by 2050, driven by the increasing electrification in heating, transportation and industry. At the same time, the power grid is facing tremendous challenges, especially on the low-voltage grid level. On the consumer (demand) side, the number of electrical vehicles will increase 13-fold, and in Europe alone, 40 to 50 million additional heat pumps are expected to be installed by 2030. On the generation (supply) side, annual grid connection requests are forecast to increase by a factor of five to eight in the next few years. Most of these changes are happening at the distribution grid level and are pushing existing grids to their limits. The challenge for DSOs is to provide the necessary capacity and connections quickly while dealing with limited resources to keep the grid stable.

“Low-voltage grids can become a trailblazer on our path to net zero,” said Sabine Erlinghagen, CEO of Siemens Grid Software. “But only if we deploy software to increase the capacity of the existing grids quickly. That’s why we are extremely proud to launch LV Insights X. As an industry first, this software enables utilities to actively manage low-voltage grids to gain speed for transforming the overall energy system, make maximum use of the existing infrastructure, and ultimately shape the energy transition.”

When implementing the LV Insights X software, grid operators will benefit from significant time savings, detailed insights as well as more efficient outage management and optimized workflows. Power utilities can break down data silos across departments, stakeholders, and systems. This reduces data handling efforts by up to 80 percent and the time required for grid model maintenance by 50 percent. A digital twin of a low-voltage grid can be created easily by integrating data from various sources, e.g., geographical information systems (GIS), Meter Data Management (MDM) systems, and Advanced Distribution Management Systems (ADMS). The complete grid topology and all information on the near-real-time grid status become visible and can be monitored at any time via a modern, browser-based user-centric graphical interface – even via mobile devices outside of the control room. For example, with outage zones being visualized on a map, grid operations engineers can identify outages much faster, while an integrated ping function allows them to quickly check the impact of faults. In addition, utilities can

significantly improve their planning accuracy, optimize their entire planning activities, and increase the effectiveness of their investments.

Developed as part of the Siemens Xcelerator portfolio, LV Insights X is available as Software as a Service (SaaS). Compared to on-premises software, SaaS guarantees the fastest possible time to operation and significantly lowers entry costs and risks, combined with high scalability and cybersecurity standards.

This press release as well as press pictures are available at https://sie.ag/3WVstZL

Follow us on Twitter at www.twitter.com/siemens_press

Contact for journalists:
Siemens AG
Lena Carlson
Phone: +49 159 0168 4611; Email: lena.carlson@siemens.com

Eva-Maria Baumann
Phone: +49 174 2358 997; Email: eva-maria.baumann@siemens.com

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. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2022, the business had around 72,700 employees worldwide.

Siemens AG (Berlin and Munich) is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, helping them to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.
In fiscal 2022, which ended on September 30, 2022, the Siemens Group generated revenue of €72.0 billion and net income of €4.4 billion. As of September 30, 2022, the company had around 311,000 employees worldwide. Further information is available on the Internet at www.siemens.com