

**CIGRE 2018, August 26-31, Paris, Palais des Congrès, Booth 354**

## “Future built in”- Siemens presents digital substations at CIGRE 2018

- **Holistic approach for smart, digital substations capable of handling demands of the power grid of the future**
- **Ensuring reliability, resilience and efficiency by using intelligent system components and IT/OT convergence**
- **Environmental protection ensured by integration of eco-friendly technology**

Siemens has launched the concept for substations with the future built in – an integrated 360° portfolio of products and solutions based on Siemens' unique technical know-how and consulting expertise, at this year's CIGRE session in Paris. Global trends like decarbonization, decentralization and digitalization are disrupting the energy industry. These trends are posing challenges to energy systems worldwide by making them more complex and stressing the need for smart grid management solutions. As substations are the centerpieces of any energy system, they play a crucial role in the power grid of today and will gain even more importance in the future grid. Siemens is now offering a holistic approach for digital substation solutions making consistent use of all available data, state-of-the-art analysis and comprehensive data connectivity through MindSphere – Siemens' open cloud-based platform for the Internet of Things (IoT).

“With the digital substations Siemens has built the future in today's offer. We combine advanced power transmission and digitalization solutions for energy systems. We improve availability and reliability of the grid, achieve greater efficiency and ensure environmental protection. Furthermore, digital substations with the future built in provide a wealth of operational data, optimizing the entire life cycle of our customer's installations from investment to operations and all the way to maintenance”, says Ralf Christian, CEO of Siemens' Energy Management Division.

Our energy systems are increasingly turning into flexible infrastructures that are characterized by distributed generation from renewable sources that are fluctuating by nature, an instantly growing number of prosumers and bidirectional power flows. Only smart, digital solutions can manage such multi-directional, complex energy systems in a reliable, safe and efficient manner. Digitalization drives further development, as the consistent use of data opens new opportunities when assets are connected via an intelligent network. That's why the Internet of Energy (IoE), a specific IoT for the energy sector, is gaining ground. The IoE uses data generated by today's smart assets to intelligently network them and improve their efficiency, reliability and profitability throughout their life cycle. Taken together, digitalization and data networking on a platform such as MindSphere take grid operation to an entirely new level. The benefits in terms of predictive planning, enhanced network operation and value creation beyond the provision of grid transmission capacity are tremendous.

Resilience of the overall power grid and its assets is increasingly posing challenges. To reduce the impact of disruptive events and speed up recovery, all three dimensions of resilience are considered in the substations with the future built in concept: Digital protection based on comprehensive cybersecurity concepts as our certified Secure Substation Framework. Systemic protection through numerous grid stability solutions such as mobile substations and FACTS as well as plug&play transformers. Physical protection is ensured for example with bullet-resistant transformers, access control and presence detection.

Furthermore, digital substations from Siemens contribute to aligning business needs with the needs of society. Eco-friendly products from Siemens Blue Portfolio such as circuit-breakers, instrument transformers and gas insulated switchgear with vacuum interrupters and so called Clean-Air insulation have been integrated.

The press kit for CIGRE 2018 is available at

[www.siemens.com/press/cigre2018](http://www.siemens.com/press/cigre2018)

This press release is available at

<http://www.siemens.com/press/PR2018080280EMEN>

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For further information on substation with future built in, please see

[www.siemens.com/digital-substation](http://www.siemens.com/digital-substation)

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