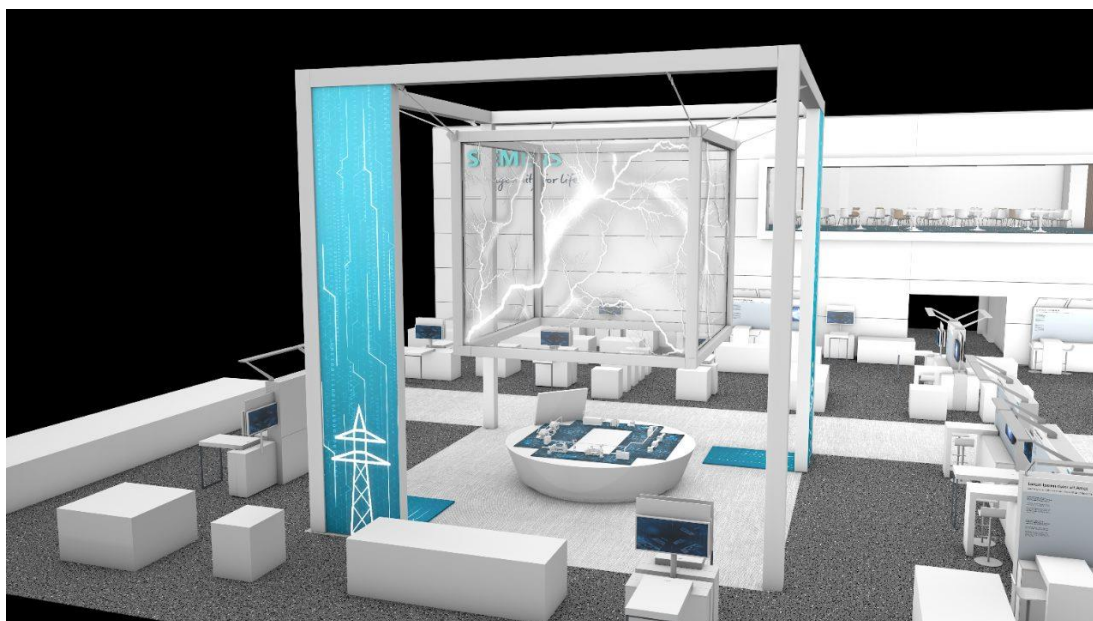


Hanover, April 24, 2017

Hannover Messe 2017, Hall 9, Booth D35

## Energy for Industry: Smart energy management through data analysis



Electrical energy is the indispensable foundation for successfully transitioning to Industrie 4.0. To optimize their production, companies need a reliable and efficient power supply of the best quality at the lowest possible cost. In many cases, producing electricity in-house is the most attractive option for compensating demand peaks and fluctuating energy prices. Smart energy management is also becoming more and more important. Not only does it help reduce consumption, it's increasingly requested or even required by regulatory authorities. The manufacturing and process industries don't usually handle any of these tasks: Instead, they rely on a strong partner who assists them with an integrated power supply solution, allowing them to successfully focus on their core business. The motto this year, "Discover the value of the digital enterprise," is uniquely applicable to industrial power supplies. Digitalization is what makes it possible to tap the full potential of energy management, in-house generation, and the new potential of the

energy market.

A key feature of the Energy for Industry Showcase at Hannover Messe 2017, from April 24 to 28, is a demonstration of the many possibilities offered by distributed energy systems and intelligent energy management solutions for industrial companies. It all starts with power infeed or in-house generation and ends with services. The plant model on our Energy for Industry table is interactive and provides in-depth information on touch displays to explain how industry can benefit. Regardless of whether companies purchase power from the grid or generate it themselves with gas turbines or photovoltaic systems and store it temporarily in batteries, the subsequent distribution of power in the plant must be both reliable and flexible. Using the example of a press shop, Siemens will be providing an illustrative demonstration of the benefits in terms of transparency and economic feasibility of its Sivacon busbar trunking system.

The body shop of an auto manufacturer in the model plant demonstrates the importance of transparency for optimizing energy management and making sound decisions. Digitalization plays an important role in monitoring energy, and it provides much deeper insights than in the past, thanks to the ability to collect, process, and visualize machines and consumption data. This means that companies can use consumption and energy price fluctuations to their advantage. By generating power in-house, they balance out short-term consumption peaks and only purchase power from the public grid when the price is low. Conversely, they also have the ability to sell excess power to the public grid when the price is high or when their consumption is covered by in-house generation. Not only is this economically attractive, it also reduces CO<sub>2</sub> emissions and increases resource efficiency. In addition, the ever-growing amount of power fed into the grids from renewable sources is so dynamic that it can impair grid stability – so a secure power supply is essential for large industrial consumers because fluctuating energy quality can hinder production. Along with in-house generation solutions, the Siemens portfolio also includes the corresponding protection systems that enable industrial companies to operate both safely and efficiently.

Because none of this can be managed without powerful software and network-connected hardware, Siemens views Energy for Industry from a comprehensive perspective and has coordinated its solutions accordingly, from infeed to the control

panel. As an expert in electrification, automation, and digitalization, Siemens can offer every company the perfect solution for a reliable, safe, and efficient power supply, and can implement energy management practices that will create entirely new business models. Machine, plant, and control panel manufacturers can also also benefit from the Siemens portfolio and pass these advantages on to their customers. An interactive table provides vivid, in-depth information on these topics.

This easy-to-understand approach allows visitors to experience how optimal energy management extends far beyond the control room. MindSphere – the Siemens cloud-based open IoT operating system – allows companies to use data from their machines and plants at any location and using different IT systems. MindApps give plant operators and OEMs new data-based services that monitor power consumption on production lines, allowing older and less energy-efficient lines to be used less often.

The Siemens booth will also feature a range of other highlights from the fields of power supply, microgrids, and energy management. New developments showcased by Siemens in Hanover include environmentally friendly switchgear, powerful grid automation technologies, and new-generation transformers, including the GEAFOL dry-type transformer. Siemens helps industrial enterprises optimize the operation of their plants with the Simatic Energy Suite, the integrated power supply solution Totally Integrated Power (TIP), and a portfolio for generating and storing power. Companies in the manufacturing and process industries can already intelligently invest in the future by making targeted adjustments. Siemens can support this investment with intelligent financing solutions. Siemens Financial Services helps companies get a handle on the digital transformation by providing budget-friendly services like Pay for Performance and software financing.

This background information and further material are available at [www.siemens.com/press/pool/de/events/2017/digitalfactory/2017-04-hannovermesse/background-energy-for-industry-e.pdf](http://www.siemens.com/press/pool/de/events/2017/digitalfactory/2017-04-hannovermesse/background-energy-for-industry-e.pdf)

For further information on Siemens at the Hannover Messe 2017, please see [www.siemens.com/press/hm17](http://www.siemens.com/press/hm17) and [www.siemens.com/hannovermesse](http://www.siemens.com/hannovermesse)

Follow us on **Social Media**

**Twitter:** [www.twitter.com/siemens\\_press](http://www.twitter.com/siemens_press)

**Siemens AG** (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2016, which ended on September 30, 2016, Siemens generated revenue of €79.6 billion and net income of €5.6 billion. At the end of September 2016, the company had around 351,000 employees worldwide. Further information is available on the Internet at [www.siemens.com](http://www.siemens.com).