Dear reader,

This updated edition of the well-known Power Engineering Guide is a manual for everyone involved in the generation, transmission and distribution of electrical energy – from system planning, to implementation and control. Our guide is designed to assist and support engineers, technicians, planners and advisors, as well as students, trainees and teachers of electrical engineering and energy technology. Beyond that, we hope the Power Engineering Guide will also be useful as a reference work for technical questions and support continuing education and training in the technical field.

Our guide covers the entire portfolio of Siemens products for the transmission and distribution of electrical power – including high, medium and low voltage, switching substations, transformers and switchgear, and is organized by product and function. It also covers solutions in the areas of Smart Grids: energy automation, energy management and network communication, as well as service and support. Key terms and abbreviations are explained in a handy appendix, and Internet addresses are provided for additional in-depth information.

Siemens AG is a global leader in electronics and electrical engineering. Siemens’ products, systems and integrated, complete solutions benefit customers by meeting a wide variety of local requirements. They represent the key technologies of the future and set global standards. All our developments and innovations – which also affect methods and processes – are distinguished by energy efficiency, economy, reliability, environmental compatibility and sustainability. The portfolio includes solutions for power transmission and distribution, for Smart Grids, for low and medium voltage as well as energy automation.

The importance of electricity is emphasized by the rapidly increasing number of electrical applications and the fact that demand will continually grow in the coming decades. To help our customers master their respective challenges and achieve success and further growth, we continue to work on selectively strengthening and optimizing our portfolio. As a result, in addition to “traditional” products for power transmission and distribution, today’s portfolio includes a wide range of additional products. We offer grid operators, electricity customers, planners and builders of electrical systems the additional benefits of integrated communications and automation technology. Our spectrum of services includes the planning, maintenance and repair of entire power supply systems.

Thanks to our vast experience in managing projects around the world, we provide power utilities, industrial companies, cities, urban planer and city hubs (airports and harbors) with cost-efficient custom-tailored solutions. Please do not hesitate to contact your local Siemens sales office. You will find the contacts to Siemens in your region at www.siemens.com/energy and www.siemens.com/infrastructure-cities.

Power Engineering Guide Editorial Team