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Special Issue Reprint

Modeling and Analysis of Power Systems

Edited by: Konrad Zajkowski

The biggest problem of modern energy is activities that reduce its impact on the environment around us. New technologies for producing clean energy are being developed, but solutions to reduce energy consumption are also sought after. Energy consumption should be understood as physical phenomena occurring in all elements of the power system. Therefore, this topic concerns the elements of generation, transmission, and reception. The efficiency of the total power system is influenced by the efficiency of the individual elements of the system. Improving the efficiency of the power system requires the use of mathematical models and analyses. The aim of this Special Issue of the journal *Energies* was to bring together articles addressing mathematical models and analyses of electrical power system circuits. In particular, the Special Issue focused on the following topics:

- Modeling and analysis of generating and distribution systems;
- Mathematical description of the electrical energy receiver;
- Improving the efficiency of electricity generation, transmission, and consumption;
- Modeling of dispersed energy production systems;
- Intelligent control of energy flow in a dispersed energy production system;
- Modeling hybrid production systems;
- Power compensation for three- and four-wire lines.

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