Power System Optimization: Large-scale Complex Systems Approaches

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**DESCRIPTION**

An original look from a microeconomic perspective for power system optimization and its application to electricity markets

- Presents a new and systematic viewpoint for power system optimization inspired by microeconomics and game theory
- A timely and important advanced reference with the fast growth of smart grids
- Professor Chen is a pioneer of applying experimental economics to the electricity market trading mechanism, and this work brings together the latest research
- A companion website is available

**ABOUT THE AUTHOR**

Haoyong Chen, Professor and Assistant Dean, School of Electric Power, South China Univ. of Technology, China. Chen is a Senior IEEE Member. He was the first to apply the cooperative co-evolutionary algorithm to power system unit commitment and expand it to the areas of power system optimal planning/operation, oligopolistic electricity market simulation and analysis. He has been working in this area since 1995 with his research mainly concentrating in the areas of power system planning/operation/control, electricity market modelling/simulation/analysis, and smart grids. Chen has been leading a couple of China national
scientific and technology research projects. He has published over 30 peer-reviewed journal paper and 4 books in Chinese. He also works closely with Chinese power companies.

**Dr. Yongjun Zhang, Associate Professor, School of Electric Power, South China Univ. of Technology, China.** His main research fields include power system operation analysis and control, voltage and reactive power optimization, power system reliability and risk assessment and power system energy saving assessment and planning. He has published some well cited papers in the authoritative international and Chinese journals. In particular, he has many experiences in solving practical engineering problems concerning reactive power optimization.

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