DOI: https://doi.org/10.15407/techned2016.04.062

ANALYSIS AND OPTIMIZATION OF ENERGY PROCESSES IN DISPERSED ELECTRICAL POWER SYSTEMS

Journal Tekhnichna elektrodynamika

Publisher Institute of Electrodynamics National Academy of Science of Ukraine

ISSN 1607-7970 (print), 2218-1903 (online)

Issue № 4, 2016 (July/August)

Pages 62 – 64

Author

S. Denysiuk

National Technical University of Ukraine "Kyiv Polytechnic Institute",

Pr. Peremohy, 37, Kyiv, 03056, Ukraine,

e-mail: spdens@ukr.net

Abstract

The features of energy processes in distributed power systems with alternative energy sources and controls devices based on power electronics optimization analysis are researched. The feasibility of power freeze decomposition and power exchange in to components that reflect a variety of factors influence are showed. The ratio for component power losses analysis, the mutual influence of the elements estimation and measurement accuracy are presented. References 5.

Key words: dispersed energy of energy processes, power Frize, power exchange.

Received: 03.02.2016 Accepted: 07.04.2016 Published: 21.06.2016

References

- 1. Zhuikov V.Ya., Denysiuk S.P. Energy processes in electrical systems with key elements. Kyiv: Text, 2010. 264 p. (Ukr)
- 2. Stogniy B.S., Kyrylenko O.V., Prakhovnik A.V., Denysiuk S.P. The evolution of smart grids and their prospects in Ukraine.

Tekhnichna Elektrodynamika

- . 2012. No 5. P. 52-67.
- 3. Future of the Grid: Evolving to Meet America's Needs. Prepared for the U.S. Department of Energy by Energetics Incorporated under contract No. GS-10F-0103J, Subtask J3806.0002. Available at: http://energy.gov/sites/prod/ (accessed 12.01.2016)
- 4. Research and Innovation roadmap of the European Electricity Grid Initiative (EEGI).

 Available at: http://www.gridplus.eu/Documents/20130228 EEGI%20Roadmap%202013-2022 to%20print.pdf/ (accessed 22.01.2016)
- 5. SmartGrids Strategic Research Agenda (SRA) for RD&D1 needs towards2035 "SmartGrids SRA 2035". Available at: http://www.smartgrids.eu/documents/sra2035.pdf (accessed 15.01.2016)

PDF