DOI: https://doi.org/10.15407/techned2016.04.071

THE IMPACT OF TRANSIT OVERFLOWS OF POWER ON LOSSES IN THE POWER GRIDS

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 71 - 73

Authors

O. Buslavets¹, O. Burykin^{2*}, P. Lezhnyuk²

¹ - Ministry of Energy and Coal Industry of Ukraine,

Khreshchatyk str., 30, Kyiv, 01601, Ukraine

² - Vinnytsia National Technical University,

Khmelnytske Shose, 95, Vinnytsia, 21021, Ukraine,

e-mail: buslavets@ukr.net, lpd@inbox.ru, mr.burykin@mail.ru

* ORCID ID: http://orcid.org/0000-0002-0067-3630

Abstract

The article deals with the increase of technical and economic efficiency of electrical grids operation in conditions of energy supply under the bilateral contracts and in conditions of balancing power market, taking into account the impact of transit overflows of power on electricity losses from various independent producers. Electric energy losses from transit overflows and provide for them by targeting proposes that the analytical expressions. Meaning they voltages and power generation and consumption in the nodes according to specified operational and information complex. References 4.

Key words: electrical power network, transit power flow losses, power losses targeting.

Received: 03.02.2016 Accepted: 11.04.2016 Published: 21.06.2016

References

- 1. Zhelezko J.S. Electricity losses. Reactive power. Power Quality: Guidelines for practical calculations. Moskva: ENAS, 2009. 465 p. (Rus)
- 2. Kyrylenko A.V., Prykhno V.L., Chernenko P.A. Split-level program complex for power systems operational management tasks solving.

Tekhnichna Elektrodynamika

- . Tem. vypusk Problemy suchasnoi elektrotekhniky. 2008. Part 3. P. 33–38. (Rus)
- 3. Lezhnyuk P.D., Kulyk V.V., Burykin O.B. United power system electric networks interference in the process of their modes optimum control: Monografiya. Vinnytsia: Universum-Vinnytsia, 2008. 123 p. (Ukr)
- 4. SND 34.09.104-2003. Methodological guidance for power balance structuring in electric networks of 0.38-150 kV, analyze its components and technological electricity expenses rationing. Kyiv, 2004. 128 p. (Ukr)

PDF