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PHASOR MEASURING OF OPERATIONAL CONDITION PARAMETERS AND IDENTIFICATION OF LOW-FREQUENCY MODES OF ELECTROMECHANICAL OSCILLATIONS IN THE INTERCONNECTED POWER SYSTEM OF UKRAINE

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Abstract

The cases of occurrence in 2016 - 2017 in the Interconnected Power System (IPS) of Ukraine the low-frequency oscillations (LFO) of IPS operational condition parameters were studied, and identification results of LFO modes are presented. These results testify to influence of the IPS’s circuit and operational conditions upon the composition and frequencies of LFO’ dominant modes. During these studies the results of phasor measuring of IPS operational condition

parameters and an ensemble of specially selected methods of signal analysis were used. Necessary conditions for creating a system to monitor low-frequency oscillations in the IPS of Ukraine are determined. References 17, figures 5, tables 4.

Key words: Interconnected power system, phasor measurement unit, low-frequency oscillations, methods of signal analysis.

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