PHASOR MEASUREMENT UNITS APPLICATION IN FRAME OF INTERCONNECTION OF LARGE-SCALE POWER SYSTEMS

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ABSTRACT

This paper contains the analysis of existing, as well as possible future application of Phasor Measurement Units (PMU) in frame of interconnection of large-scale power systems. The work is based on the real example – interconnection of EU and Russian power systems. Paper reviews the technical specification of PMU, data concentrators and information output instruments as modern dynamic monitoring system for power grid.

The analysis have shown, that application of PMU in power system nodes gives a better opportunity to observe power system's state, to make optimal decision on planning or protection, to perform a forecast, to choose optimal management scheme etc.

Keywords – Power System Monitoring, Phasor Measurement Unit, Power System interconnection.