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THE DEVELOPMENT OF SMART SYSTEMS FOR CONTROL, METERING AND ENERGY MANAGEMENT IN LIBERALIZED ELECTRICITY MARKET OF UKRAINE

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Abstract

The period of the emergence of the Ukrainian electricity market was characterized, in particular, by the large-scale implementation of automated systems of commercial electricity metering (ASCEM) of the wholesale and retail markets players in order to form the information support of the payments for electricity. The creation of ASCEM in the wholesale market was actually

completed in 2010, and since March 2011 the payments in the Wholesale Electricity Market (WEM) of Ukraine are based on ASCEM data of the WEM players. The ASCEM in the retail electricity market is mainly implemented by industrial consumers. Such important areas of electricity consumption as the householders and utilities are practically not covered by ASCEM today, first of all, due to the lack of appropriate normative support. Implemented of the ASCEM on the industrial enterprises today practically are not used for payments (except for the power supply at unregulated tariff), and are used mainly for control the power consumption modes. In the general case, the information interaction of the ASCEM of wholesale and retail markets players is impossible due to the lack of compatibility, in particular information, resulting from the creation of ASCEM on the basis of various regulatory requirements. All this is a barrier for the full-scale use of ASCEM in conditions of Ukrainian electricity market liberalization, where every consumer, including the household, is a potential player in the electricity market. The article analyzes the current state and identifies the ways of development ASCEM in order to increase the efficiency of their application in conditions of Ukrainian electricity market liberalization. The experience of EU member states in the Smart Metering Systems roll-out is being studied in order to create information support of commercial metering and tasks of energy usage management in the conditions of liberalized electricity markets functioning. References 9, table 1.

Key words: ASCEM, data metering, electricity, meter, metering, electricity market, Smart Grid, Smart Meter, Smart Metering System.

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