

MARCIN TRUPKIEWICZ

**Smart grids as a platform for entrepreneurs' innovative activity
in the energy sector – legal issues**

Summary

This paper is an analysis of smart grids and smart metering concept under Polish energy law. The main focus is put on the innovative potential which will become available in the electricity market once the energy system in Poland is based on smart grids and when energy consumers are billed with the use of smart metering. In the first part of the paper, the concept of a smart grid and its innovative characteristics is presented. The main emphasis is put on cooperation between businesses operating in the energy sector and those in the IT sector. This innovative approach is indirectly determined by numerous EU legislative acts which set out trends and directions of development of the energy transmission system. The second part addresses the legal requirements of implementing a smart grid concept and looks at how this issue is understood the Polish regulatory authority and others bodies of central administration responsible for the energy sector. The paper ends with an identification of potential benefits arising from the implementation of smart grids and smart metering, which include: renewable energy resources, energy efficiency, energy security and the mechanism of demand side management. All these can contribute to the development of businesses involved in the energy sector and the development of a competitive electricity market in Poland.

Keywords: smart grids – advanced metering infrastructure – demand side management – competitive electricity market