

Determination of the Best Communication Technology for Smart Grids with Fuzzy Logic Approach

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Abstract

Nowadays optimum operation of natural gas network infrastructure has become an important goal, due to the increase of energy need which is emerged as a consequence of rapid population growth in metropolitan cities and mega investments. This goal can be realized with the smart grid concept. In this article, the importance of a smart grid decision support system is examined and improvement potentials are discussed for natural gas distributing companies. Smart grid decision support system and accordingly its establishment roadmap have been presented. The smart grid is the integration of energy distribution management and ICT technologies. It provides a sustainable, secure and efficient energy network by enabling real-time dual information transfers starting from energy production through distribution, storage, and consumption. Additionally, the data gathering from smart grid systems must use to provide foresight and strategic decision support for sustainable development.

Keywords

Smart Grids; Smart Cities; Decision Support; Big Data; Natural Gas