

Onyshchenko, V., Onyshchenko, S., Verhal, K., Buriak, A. (2023). The Energy Efficiency of the Digital Economy. In: Onyshchenko, V., Mammadova, G., Sivitska, S., Gasimov, A. (eds) Proceedings of the 4th International Conference on Building Innovations. ICBI 2022. Lecture Notes in Civil Engineering, vol 299. Springer, Cham. https://doi.org/10.1007/978-3-031-17385-1_64

Abstract

Digitalization describes the growing application of information and communication technology across the economy, leading to increasing volumes of data, rapid progress in advanced analytics, and greater connectivity between humans, devices and machines. In addition to the positive effect that information technology has on the economy, it should be noted the presence of a negative effect. The dual nature of this impact also applies to the energy efficiency of digital technologies. The authors investigate the impact of digital economy deals with energy efficient, the major ways in which information and communication technology can be expected to affect CO2 emissions are defined in the article. The article identifies the main elements that interact with each other and in general determine the energy efficiency of information technology. Such components include–users, networks, data centers. It is established that the influence of these components must be taken into account in various processes–production, use, disposal. The authors also identified the effects of the digital economy on energy efficiency–direct effects, indirect effects, rebound effect.

Keywords: Digital economy, Digitalisation, Information and communication technology, Energy efficiency, Impact of digital economy

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