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BASIC TENDENCIES FOR THE DEVELOPMENT OF ENERGY OF UKRAINE

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Abstract

The balance between production and consumption of energy is one of the priority goals of the electric power industry in Ukraine's energy strategy. Electricity consumption in Ukraine is estimated at 120 billion kWh. The main consumers are the population, metallurgy, public utilities and transport (30, 25.13 and 6 percent, respectively). Changes in volumes of consumption can occur due to increased melting of electric steel and the production of electric vehicles. The

global trend in generation is the increase in the share of decentralized energy from renewable sources, fuel cells and improved gas engines. A technological breakthrough in the use and transport of electricity is associated with the development of means of accumulation. In recent years, the cost of batteries has decreased and their power has increased. This will lead to their wide application in the utility sphere and energy systems. There will be no need to build peak capacities and pumped storage stations. There are risks in meeting the country's needs for hydrocarbon fuels. The main risk of Ukrainian energy is the danger of being out of technological progress. References 7, table 1.

Key words: power consumption, production, decentralized energy, accumulation, technological progress.

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References

1. Energy Strategy of Ukraine till 2035: Security, Energy Efficiency, Competitiveness. The Order of the Cabinet of Ministers of Ukraine dated August 18, 2017 No. 605 p. (Ukr)

2. Kulik M.M., Gorbulin V.P., Kyrylenko O.V. Conceptual approaches to the development of Ukrainian energy (analytical materials). Kyiv: Instytut Zahalnoi Enerhetyky Natsionalnoi Akademii nauk Ukrainy, 2017. 78 p. (Ukr)

3. Jonson B.W. Adiabatic expansion heat engine and method of operating. Patent US. No 8,156,739 B2. 2012.

4. Antoshchuk T.A., Bilichenko M.M., Zeleny O.A., Karp I.M., Lysenko A.A., Pyanykh K.E., Pyanykh K.K., Przestrzelski Dariusz. Method of thermal conversion of solid fuel and gas producer for its implementation. Patent of Ukraine. 2014. No 115575. Bullet. No 8. (Ukr)

5. National renewable energy plan for the period up to 2020. Order of the Cabinet of Ministers of Ukraine from 01.10.2014. No 902-p. (Ukr)

6. Kyrylenko O.V. Intelligent Electric Networks: Elements and Modes. Monographiia. Kyiv: Instytut Elektrodynamiky Natsionalnoi Akademii nauk Ukrainy, 2016. 400 p. (Ukr)

7. National plan for emission reductions from large combustion plants. Project. Developed by the Ministry of Energy and Coal (2015) for the implementation of the EU Emissions Directive (IED, 2010/75 / EU).

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