

# **THE CHANGING WORLD OF POWER GENERATION AND CONSUMPTION**

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The world of power generation and consumption is undergoing rapid transformation. With the rise of renewable energy sources like solar and wind, and advances in energy storage and grid technology, electricity production is shifting towards more sustainable and efficient methods, reshaping the future of energy consumption globally.

Electricity is of great importance both in human life and in ensuring sustainable economic development. In many countries, the energy sector of the economy is on the path of drastic changes and radical transformations. Processes of mergers, takeovers, changes in the management structure, the boundaries of the sphere of activity and the territorial one are taking place presence, forcing many former energy monopolies to use new value creation models. (Fedorchuk, p.155)

The modern world is experiencing an energy revolution. Energy sources such as coal, oil, natural gas, and uranium and graphite are giving way to renewable sources, which include solar, wind, hydro, and geothermal energy. (Evdokymova, 2207, p. 318) This global transition is a key step in the fight against climate change, the reduction of harmful greenhouse gas emissions, food shortages and the spread of radioactive contamination in some areas.

In addition to abandoning fossil fuels, energy storage also plays a significant role. So, it is necessary to think not only about how to replace the energy system with a safer one for the environment, but also how to properly store energy without losing

it. To replace the energy system of today requires more than one year, a lot of resources, technologies, as well as the human factor.

Renewable energy is able to provide sufficient production of heat and electricity for industry, households, the transport sector and agriculture. It will create new jobs for the manufacture and installation of equipment, installation and maintenance of solar systems, and conducting energy audits of buildings.

Today, "green" energy forces us to look at known sciences and technologies in a new way, which can lead to the emergence of new, completely unknown fields of knowledge. (Koval, 2019, p.54.)

I believe that in energy, an innovative path of development, is an objective necessity.

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