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ANALYSIS OF RENEWABLE ENERGY SOURCES USING IN REPUBLIC OF BELARUS

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Problems of energy production and reducing the negative impact on the environment during its using are actual for Republic of Belarus. In this regard the analysis of structure of renewable energy sources (RES) using in the republic is carried out.

According to the State Program «Energy Saving» for the period 2021–2025 years [1], the total installed electric capacity of RES installations was 491 MW on the end of 2020. It includes 80 photovoltaic stations with a capacity of 159 MW; 53 hydroelectric power stations with a capacity of 96 MW; 101 wind equipment with a capacity of 109 MW; 29 biogas complexes with a capacity of 38 MW; 10 mini heat power station on wood fuel with electrical capacity of about 89 MW. In the structure of renewable energy sources, the main part consists in the use of biomass, mainly wood fuel. This takes place due to the lowest investment volumes and short payback periods in comparison with other types of renewable energy sources.

Saving traditional fuels due to renewable energy sources makes up more than 400 thousand tons of fuel equivalent, most of which comes from biomass energy. The main contribution in decreasing greenhouse gases emissions in atmosphere is brought by such categories of RES as biogas energy, wind power and also the movement of water streams.

The analysis of RES using in republic shows that increasing share of their using in the total fuel balance promotes to save fossil fuel and essentially reduce the environmental impacts.

References

1. Государственная программа «Энергосбережение» на 2021–2025 гг. Утв. постановлением Совета Министров Республики Беларусь от 24.02.2021 г. № 103.