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Renewable Energy Sources and Energy Production

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The growth of the total share of renewable energy sources use is possible only with the assistance of an ambitious policy to support the industry and an up-to-date regulatory and legislative framework. Belarus has been developing incentive measures for the large-scale deployment of renewable energy for many years, but the process itself is still at an early stage, and therefore the growth rates of the renewable energy industry don't allow using the country's rich resource potential.

The current level of global energy development is closely related to one of the most relevant global trends in the electric power sector – the promotion of technologies for the rational use and efficient deployment of renewable energy capacities. Countries that have set as their goal to increase the level of energy independence through the development of the renewable energy sector pay considerable attention to this prerogative at the state level. Of course, investments in renewable energy pay off faster than financial injections into the development of traditional hydrocarbon energy sources.

With the accelerating development of the renewable energy sector, the state policy in the relevant area should be flexible and adaptive to changing market conditions, new technical and socio-economic developments.

The current approach to the development of renewable energy in the Belarusian energy sector is provided through supportive measures, however, they can hardly be called fully such. Let us explain: the current process of interaction

"producers of renewable energy – GPO "Belenergo" in the Republic of Belarus today is structured as follows. A producer of renewable energy sells its electricity to a supplier represented by a regional subsidiary of GPO Belenergo according to the preferential tariff rates set by the Ministry of Antimonopoly Regulation and Trade (we are not talking about renewable energy installations for private needs). Each technology has its own multiplication coefficient in relation to the base tariff.

The situation associated with the formation of a preferential tariff, which in turn is associated with basic electricity tariffs that do not actually reflect the cost of a unit of production, is further aggravated by the fact that the multiplication coefficients remain low. In particular, the coefficients for wind and solar photovoltaic technologies remain particularly low, which are the leading areas of renewable energy, however, in fact they are on the same level with other cheaper technologies [1].

In addition to this, the methodology for determining multiplication coefficients is not transparent enough: some coefficients are differentiated by the service life of the project, while others are differentiated by capacity, the operating life of the equipment of the installations at the time of their commissioning or according to other parameters.

The development of renewable energy in the Belarusian energy sector is also limited by the annual allocation of quotas that determine the volume of installed capacities for renewable energy technology. Quotas are allocated for the upcoming three-year period, but they are regularly reviewed, which negatively affects investor confidence. Relatively frequent quota reallocations and amendments to regulatory documentation limit the growth rate of the renewable energy sector. In order to create a clearer investment planning horizon, it is necessary to involve more stakeholders in the quota

allocation process, as well as to revise the quota period upwards, which will allow investors to have an idea of the market development in the short and medium term. Also, questions remain about the mechanism of allocation of quotas for the structure of renewable energy sources, in particular, the stimulation of the hydropower sector, and the relatively low attention in the photovoltaic industry.

The process of renewable energy development as part of the energy system is supported on the one hand by incentive measures, but they are not without drawbacks, uncertainty and the inherent regulatory-limiting nature of the process. Quotas, reduction of coefficients in combination with other factors create fears on the part of investors and produce risks of entry of large players into the domestic market [1].

The way out of this situation, as well as a significant driver of the development of the direction and attraction of investments in the field of renewable energy (especially large investments in high-capacity/utility-scale block stations), can be the organization of auctions for renewable energy, contributing to the establishment of market tariffs for renewable energy production. Today auctions are one of the most successful mechanisms of supporting policy in the field of renewable energy development around the world. They allow for a well-planned and economically verified use of renewable energy, ensuring transparency of the cost formation process and reducing market risks.

References:

1. Energy [R]evolution: a Sustainable Belarus Energy Outlook [Electronic resource]. – Mode of access: https://ua.boell.org/sites/default/files/energy_revolution_eng_w eb-2_1.pdf. – Date of access: 13.03.2022.