

PECULIARITIES OF LEGAL REGULATION OF USE OF RENEWABLE ENERGY IN THE BRICS MEMBER STATES

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The article presents an analysis of the peculiarities of legal regulation of use of renewable energy sources in the member states of an international organization BRICS. The article examines the provisions of strategic planning documents, the main provisions of legislative acts. Each BRICS member state has its own peculiarities of legal regulation in the field of use of renewable energy sources. In this regard, it seems relevant to conduct comparative legal studies of the laws of the BRICS member states in order to ensure further development of legal regulation of use of renewable energy sources in the Russian Federation, and to perform work on international legal harmonization. Use in the legal regulation system of a state-funded renewable energy development fund, the funds of which are used to support research, develop demonstration projects of renewable energy sources, create projects for use of renewable energy sources in rural and cattle-breeding areas, create independent energy production systems using renewable energy sources in remote areas and on islands, etc. is of particular interest.

Keywords: energy law, energy law of foreign countries, legal regulation of use of renewable energy sources.

According to experts, the BRICS member states (Brazil, the Russian Federation, India, the People's Republic of China, the Republic of South Africa) have such economic potential that they can become four dominant economic systems by 2050 [1].

The BRICS Economic Development Strategy [2] defines main goals and objectives of this international association, partnership areas and priority areas of cooperation of the member states. Section 3 *Energy* deserves special attention. According to it, "contribution to use of renewable sources" of energy stands out as one of

the priority areas for improvement of energy security in the BRICS countries. Moreover, focus on "new and renewable energy sources, energy conservation" is specifically mentioned as the main area of cooperation within the framework of BRICS in the field of science, technology and innovation.

On September 4, 2017, the Xiamen Declaration of the Leaders of BRICS countries [3] was signed within the framework of the BRICS summit in China. It reflected the following provisions: recognition of sustainable development, access to energy and energy security as key fac-

tors for overall prosperity and future of the planet; recognition of access for all to clean energy and renewable energy sources; contribution to development of open, flexible and transparent markets for energy raw materials and energy technologies; promotion of the most efficient methods for use of fossil fuels and wider use of gas, nuclear and water power, which will contribute to transition to a low-emission economy, expanded access to energy and sustainable development; maintenance of continued dialogue on creation of the BRICS Energy Research Platform, etc.

Let us dwell in more detail on the peculiarities of legal regulation of use of renewable energy sources for each of the BRICS countries.

Brazil. The modern energy market of Brazil is committed to sustainable development and for the most part it consists of hydro and regenerative energy, as evidenced by a 60% share of renewable energy in the energy sector [4].

Brazil adopted Ten-Year Energy Expansion Plans (PDÉE), which are annually revised by the Brazilian National Council for Energy Policy (CNPE) [5]. Thus, in 2017, the Brazilian Ministry of Energy adopted a new Plan specifying the following policy objectives in the field of renewable energy: first, maintenance of the prevailing share of renewable sources and sources of greenhouse gas emissions amounting up to 80% of the total capacity; second, in the conditions of transition to renewable energy by 2022, the need for additional capacities is forecasted, which can be provided by storage technologies or adaptable heat power plants; third, despite development of hydrocarbon raw materials, in particular, expansion of the oil market, a stable high percentage of use of regenerative energy in the domestic energy market is guaranteed, not less than 47% by 2027, etc. [6] Summing up the given information, it can be concluded that Brazil rather clearly defines the political vectors and targets for expansion of the renewable energy sector both in the long and medium term, which makes it possible to comprehensively monitor and analyze various transitions and use of renewable energy sources in Brazil.

Brazil's legal regulation of regenerative energy is based on several legislative acts although none of them contains definition of "renewable energy sources" or "clean energy". Adopted in

1997, Law No. 9,478 establishes among general legal principles: use of alternative energy sources through economical use of available raw materials and applied technologies and environmental protection [7]. The legislation establishes some technical characteristics for such facilities: hydroelectric power plants with a capacity equal to or less than 50 MW (limited by 30 MW of energy introduced into the system) and solar, wind and biomass or qualified cogeneration in accordance with the standards set by the National Electric Energy Agency (ANEEL), with a capacity equal to or less than 300 MW [8].

The first legislative initiative related to introduction of RES in Brazil is based on the Proinfa project and it is implemented in accordance with Law No. 10,438 dated April 26, 2002. Through Proinfa, electricity producers can participate in Eletrobras bidding process for energy sales under the long-term energy trading agreements in the regulated environment (CCEAR) and at fixed and pre-set prices. This provision was reformed in 2004 as a part of adopted Law No. 10,848 dated March 15, 2004, which, along with other auctions, determines auctions specifically for RES.

Other normative legal acts that determine measures to stimulate transition to regenerative energy, powers of public authorities, establish responsibility of energy companies, etc. were also adopted in Brazil.

The Russian Federation. The basic document for strategic planning in the energy sector is the Energy Strategy of Russia for the Period up to 2030, in which it is planned to increase the relative volume of production and consumption of electric energy using renewable energy with the capacity up to 25 kW (except for hydropower plants with the installed capacity exceeding 25 MW) from about 1.5% up to 4.5%.

The normative legal regulation of the RES in the Russian Federation is represented by various sources of energy law, among which the following should be noted: Federal Law No. 35-Φ3 dated March 26, 2003, *On the Electric Power Industry*, Decree No. 426 of the Government of the Russian Federation dated June 3, 2008, *On Qualification of Generating Facility Operating on the Basis of Use of Renewable Energy Sources*, Decree No. 1172 of the Government of the Russian Fed-

eration dated December 27, 2010, *On Approving the Rules of the Wholesale Electricity and Capacity Market and on Amending Certain Acts of the Government of the Russian Federation on the Procedure for Operation of the Wholesale Electricity and Capacity Market*, Decree No. 47 of the Government of the Russian Federation dated January 23, 2015, *On Introduction of Amendments to Some Acts of the Government of the Russian Federation on Issues of Stimulating Use of Renewable Energy Sources in Retail Electricity Markets*, and Order No. 316 of the Ministry of Energy of Russia dated July 29, 2011, *On Approval of Layout Chart of Generating Facilities of the Electric Power Industry on the Basis of Use of Renewable Energy Sources in the Russian Federation*.

Despite the fact that legal studies of the problems of legal regulation of use of renewable sources are performed [9], no separate comprehensive study has been carried out yet.

India. According to statistics published by the Ministry of New and Renewable Energy of India (MNRE), as of 2019, the share of regenerative energy in the total installed capacity (80,467 GW) is 22% [10].

From 2011 to 2017, the Strategic Plan for New and Renewable Energy Sector for the Period of 2011-2017 [11] was in effect in India, and it remains valid at present. This document specifies the main areas of energy policy in India. The following acts are also adopted in India: the National Wind-Solar Hybrid Policy [12], the National Policy on Biofuels [13], which set goals for achieving 100 GW of solar energy by 2022 and production of 15 million tons (62 million cubic meters) of biogas/bio-CNG by installing 5,000 large-scale commercial-type biogas plants, each of which can produce 12.5 tons of bio-CNG on a daily basis.

In 2003, the Electricity Act 2003 was adopted. It provides for regulatory measures to promote RES through a) tariff setting; b) determination of a Renewable Purchase Obligation (RPO); c) facilitating network connectivity; and d) promoting market development [14].

The National Tariff Policy (NTP) of 2006 [15] specifies the obligation of the State Electricity Regulatory Commissions (SERCs) to set a minimum percentage of Renewable Purchase Obliga-

tions (RPOs) as well as purchases at preferential rates established by the SERC, distribution companies.

The People's Republic of China. According to the report of the International Renewable Energy Agency (IRENA), the PRC holds a leading position in the field of RES and it is currently the world's largest manufacturer, exporter and installer of solar panels, wind turbines, batteries and electric vehicles [16].

In 2019, the China's National Energy Administration adopted a new policy document, the Renewable Portfolio Standard (RPS), which will come into force in 2020, and will remain valid for five years. This policy document establishes that an increase in the share of non-fossil fuels will increase up to 20% of primary energy consumption by 2030 [17].

In 2006, a special legislative act was adopted in the field of development and use of RES - the Renewable Energy Law of the People's Republic of China. According to Article 2 of this law, renewable energy includes non-fossil energy sources such as wind energy, solar energy, hydropower, bioenergy, geothermal and ocean energy, etc. [18]. At the legislative level, various requirements for use of RES are established, for example, development of energy resources and its planning, industrial management and technical support, price control and cost compensation, legal rights and obligations, provisions related to economic incentives and supervisory measures. The provisions on creation of a separate RES development fund organized at the expense of state funding, which is used to support such areas as: scientific and technological research, development of demonstration RES projects; projects for use of RES in rural and cattle-breeding areas; creation of independent electricity generation systems using RES in remote areas and on islands, etc., are also consolidated.

The Republic of South Africa. Development of RES in South Africa is not as significant and dynamic as in the above-mentioned states. Circumstances that are different in their basis contribute to this problem, for example, the lack of technologies for storage and accumulation of regenerative energy, and the approach to considering "clean" energy as financially uncompetitive [19].

In 2019, the South African Government developed and published the National Plan for Development of Energy Infrastructure for the Period up to 2030 (the South African Government's National Development Plan (NDP)) [20], which lays the foundation for future electricity production using RES. This policy document is a result of South Africa's participation in the system of Africa's energy development, namely, Africa 2030: Roadmap for a Renewable Energy Future, developed by the International Renewable Energy Agency (IRENA) [21]. By the end of 2018, it was planned to specify political vectors in this area by adopting the Integrated Resource Plan (IRP) by the South Africa's Department of Energy (SADOE), but to date, the document is at the stage of elaboration and supplementation [22]. It is interesting that since 2003, the White Paper on the Renewable Energy Policy of the Republic of South Africa [23] has been in force. One of its main goals is to attract and stimulate investment in the RES sector.

The legislative aspect of regulation of use of RES in South Africa is also at the development

stage. Therefore, the only applicable normative legal act in this area is the Electricity Regulation Act of 2006, which establishes the peculiarities of tariffs, including the scope of application RES installations as well as some aspects of licensing the activities of energy corporations [24].

As a result, the renewable energy sector of South Africa is currently at the stage of formation, the legislative authorities try to settle the most important and relevant aspects of RES development. However, existing barriers of various nature somewhat restrain full-scale formation of "clean" energy in the region under consideration.

Based on the results of the performed study, one can conclude that each of the mentioned states has its own peculiarities in legal regulation of use of renewable energy sources, which gives evidence of the relevance of comparative legal study of the laws of the BRICS member states in order to ensure further development of the national legislation of the Russian Federation in this areas and work on international legal harmonization. ■

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