

INTERNATIONAL PROJECTS ON THE CONSTRUCTION OF ENERGY INFRASTRUCTURE AND ENERGY LAW AND ORDER TASKS

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The tasks of legal regulation of the energy infrastructure are becoming predominant in view of the tendencies of energy transition to a new technological level, the desire of states to ensure the fulfillment of obligations assumed based on the Paris Climate Agreement. The problems of legal regulation of international projects on the construction of energy infrastructure can be roughly subdivided into two groups: (1) issues related to the legal regulation of functioning energy infrastructure or energy infrastructure under construction, which is necessary for the production, transportation, storage of hydrocarbons and other energy types; (2) issues related to the legal regulation of energy infrastructure, which is necessary for the use of renewable energy sources, production, transportation, storage of new energy resource types including hydrogen.

As a basis for the fulfillment of tasks of the transition of energy to a new technological level, it is advisable to consider the issue of international legal unification of provisions regulating construction or update of new energy infrastructure. The development and adoption of a multilateral agreement in furtherance of the provisions of the Paris Climate Agreement will make it possible to minimize the risks of any disagreements between the energy market players.

Keywords: energy law, international legal regulation of the construction of energy infrastructure, low-carbon energy.

Energy infrastructure is designed to ensure uninterrupted, accident-free production, supply, transportation, transmission, processing, storage of energy

resources on domestic energy markets and in the implementation of foreign economic projects. Energy resources cannot be used without energy infrastructure. In this regard,

the issues of the proper condition and safety of energy infrastructure are extremely important for all energy markets players. International projects on the construction of energy infrastructure are implemented in various sectors of power engineering: electric power engineering, gas industry, nuclear energy use sector. A.G. Lisitsyn-Svetlanov is right to refer such factors as technological reliability of all elements of energy infrastructure, physical security of critical energy infrastructure, facilitation of the implementation of infrastructure projects that are important for ensuring global and regional energy security, to the basic principles of international legal regulation of power engineering. [1]

One cannot ignore the current tendency to change the structure of the demand for energy resources, the focus on replacing hydrocarbons with other types of energy resources including hydrogen, which also brings about the need for the development of modern energy infrastructure.

The tasks of legal regulation of the energy infrastructure are becoming predominant in view of the tendencies of energy transition to a new technological level, the desire of states to ensure the fulfillment of obligations assumed based on the Paris Climate Agreement.

The International Energy Agency has developed a comprehensive roadmap for the energy sector to reach net-zero emissions by 2050 that is designed to help countries identify and implement the actions needed to achieve climate, energy security and affordability goals. Dr Birol, Executive Director of the IEA, notes that achieving net-zero emissions by 2050 will require nothing but the total transformation of our energy infrastructure. That calls for decisive action this year, next year and every year to 2050. [2]

It would seem that there are enough issues of energy infrastructure for hydrocarbon

resources, but modern realities force us to overcome new challenges, including those related to climate change.

Thus, the current problems of legal regulation of international projects on the construction of energy infrastructure can be roughly subdivided into two groups: (1) issues related to the legal regulation of functioning energy infrastructure or energy infrastructure under construction, which is necessary for the production, transportation, storage of hydrocarbons and other energy types; (2) issues related to the legal regulation of energy infrastructure, which is necessary for the use of renewable energy sources, production, transportation, storage of new energy resource types including hydrogen.

Speaking of the first group of issues, the problems in the implementation of international energy projects are caused by the absence of necessary unified provisions on the construction of energy facilities, the procedure for interaction between construction subjects, untimely performance or non-performance of obligations in case of interference by third parties. These circumstances have adverse consequences for ensuring energy security, functioning of the energy law and order.

Legal regulation of international projects on the construction of energy infrastructure can be carried out at the level of international public regulation and at the level of international private regulation. As of today, there is no universal international convention governing relationships in the construction of energy infrastructure. International public law regulation is carried out mainly on the industrial basis and at the regional level.

Here are some examples of international agreements with the participation of the Russian Federation. The Treaty on the Eurasian Economic Union provides for the step-by-step creation of common energy resource markets in accordance with

international agreements taking into account energy security, based on the fundamental principles, which include, *inter alia*, the development of transport infrastructure for common energy resource markets; harmonization of national provisions and rules for the functioning of the technological and commercial infrastructure of common energy resource markets. The creation of a common gas market of the member states provides for the development of long-term mutually beneficial cooperation, including in the field of construction, reconstruction, and operation of gas pipelines, underground gas storage facilities and other infrastructure facilities of the gas complex.

Intergovernmental agreements are used in addition to interstate agreements. Here are some examples of international legal regulation of industrial projects at the level of intergovernmental agreements: the Agreement between the Government of the Russian Federation and the Government of the Republic of Turkey on the TurkStream Gas Pipeline Project (concluded in Istanbul on October 10, 2016); the Agreement between the Government of the Russian Federation and the Government of the Republic of Turkey on Cooperation in the Construction and Operation of a Nuclear Power Plant at the Akkuyu Site in the Republic of Turkey (concluded in Ankara on May 12, 2010).

Both agreements lay down a certain conceptual framework, the procedure for the interaction between the parties, specifics of tax and customs regimes and other provisions.

Of particular interest is the elaboration of the intergovernmental agreement on the construction and operation of the Akkuyu nuclear power plant. The agreement stipulates the conditions for the purchase of electrical energy. The IAEA website notes that power purchase agreements (PPAs) have

been used for decades to develop various technologies, and now they are strengthening their positions in nuclear power engineering as the most widely used approach to reduce uncertainty and ensure long-term revenues from new projects on the construction of nuclear power plants. These agreements are concluded between project performers and buyers of electrical energy produced by a nuclear power plant in order to agree on a price for a certain amount of electricity for a certain, usually long period of time, which often fully covers all project costs with profits. PPAs are usually complemented by other forms of support from the government and the suppliers, as well as innovative schemes of financing of nuclear power engineering such as «contracts for differences» and «construction, maintenance, operation» to reduce risk and attract investments. In the case of Akkuyu nuclear power plant, the use of PPAs in combination with the conditions for financing, maintenance, operation of the nuclear power plant ensure stability for the project participants, since the price of electrical energy and investments are guaranteed in advance. [3]

The TurkStream agreement is less detailed, but it also stipulates favorable conditions for the construction of gas infrastructure.

International agreements are the key instrument for the functioning of the international energy law and order. It should be noted that numerous interstate conventions serve as the basis for intergovernmental agreements in the field of nuclear power engineering.

The IAEA conducts surveys of the existing funding models, organizes meetings of experts, and publishes comprehensive reports on the costs and benefits of nuclear power engineering based on examples of successfully completed projects. The importance of nuclear power engineering producing no greenhouse gas (GHG) emissions is widely recognized

in many countries for its essential role in reducing GHG emissions and mitigating the effects of climate change. Thanks to the flexibility and continuity of the energy flow it creates, it can serve as an additional source in the event of unavailability of other energy sources such as renewable energy sources with variable generation, like wind or solar energy. Despite these advantages, financial considerations are one of the biggest challenges in introducing nuclear power engineering. In terms of economic parameters, electrical energy generated by the existing nuclear power plants remains competitive in many markets, but financing the construction of a new plant is associated with high initial capital costs and is a long-term investment. [4]

Together with the need for a total transformation of energy infrastructure, the IEA notes the need to support and secure such infrastructure.

And it should be borne in mind that the level of international legal regulation of the use of hydrogen energy is actually at the zero level, and not yet developed at the level of national laws either.

One should also take into account the absence of a uniform approach of foreign and Russian scientists to the possibility of using the existing infrastructure for hydrogen transportation, i.e., technology-related issues remain open for discussion.

Ernesto Ferlenghi, Chairman of the Energy Committee and the Green Initiative Steering Group of the Association of European Businesses in Russia noted that the «production and transportation of hydrogen energy has every chance of becoming one of the most promising areas of cooperation between the European Union and Russia». [5]

Eleven operators of gas transportation systems of nine EU countries presented the initiative called the European Hydrogen

Backbone. The presentation of operators from Germany, the Netherlands, Sweden, Denmark, Belgium, Italy, Spain, the Czech Republic and Switzerland mentions that the creation of infrastructure within the EU will cost a «moderate amount» of 27 to 64 billion euro, since «re-purposed» gas pipelines can amount to 75% of it. The authors note that the construction of new hydrogen pipelines will be more expensive than gas ones by 10 to 50%. The operators do not name any specific gas pipelines, however, judging by the published map, a part of the continuation of Nord Stream 2 has already been included in the hydrogen supply infrastructure. [6]

Russian scientists note that transporting hydrogen through the existing pipelines along with natural gas will require additional research to ensure safety of raw materials export and preserve the integrity of technological equipment and may also lead to a revision of the price of gas exported from Russia due to a change in its composition. The technology for transporting hydrogen in the form of a methane-hydrogen mixture through the existing gas pipeline system is subject to technical, legal, and regulatory risks. The addition of hydrogen to the existing gas transportation network will lead to a change in the composition, quality, and price of exported gas, which will be a violation of export contractual obligations and will also require a separate special certification of the main gas pipeline. [7]

Under such circumstances, it seems advisable to conduct interdisciplinary research so that it would be possible to develop the most optimal model for the legal regulation of the construction and operation of the necessary energy infrastructure taking into account the technological features and specifics of new energy resources.

As a basis for the fulfillment of tasks of the transition of energy to a new technological level, it is advisable to consider the issue

of international legal unification of provisions regulating construction or update of new energy infrastructure. The development and adoption of a multilateral agreement

in furtherance of the provisions of the Paris Climate Agreement will make it possible to minimize the risks of any disagreements between the energy market players. ■

References:

1. Lisitsyn-Svetlanov A.G. The Role of Law in the Modernization of the Russian Economy / A.G. Lisitsyn-Svetlanov. Moscow ISL RAS, 2011. 202 p.
2. IEA to Produce World's First Comprehensive Roadmap to Net-Zero Emissions by 2050 // IEA. 2021. 11 January.
3. URL: <https://www.iaea.org/ru/yadernaya-energetika-i-perehod-k-ekologicheski-chistoy-energii/investicii-v-perehod-k-ekologicheski-chistoy-energii>.
4. URL: <https://www.iaea.org/ru/yadernaya-energetika-i-perehod-k-ekologicheski-chistoy-energii/investicii-v-perehod-k-ekologicheski-chistoy-energii>.
5. URL: <https://news.myseldon.com/ru/news/index/241597403>
6. URL: <https://eadaily.com/ru/news/2020/07/20/germaniya-planiruet-zagruzit-severnnyy-potok-2-vodorodom-k-2040-godu>
7. Aksyutin O. The Role of Russian Natural Gas in the Development of Hydrogen Energy / O. Aksyutin, A. Ishkov, K. Romanov, R. Teterevlev // Energy Policy. 2021. No. 3 (157). P. 6–19.