

ALTERNATIVE WAYS OF ATTRACTING INVESTMENTS IN THE ENERGY SAVING TECHNOLOGIES INDUSTRY

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ABSTRACT

The objective of the research is to determine the legal terms of the implementation of alternative ways of attracting investments in the energy saving technology industry. To achieve this goal, the authors examined economic and legal problems of fundraising in the industry of energy-saving technologies and grounded the importance of solving the problems for the lighting equipment industry. The article provides a comparative analysis of the volume of global investments in this area of the economy and identifies a number of problems hampering the access of innovative enterprises to investment for developing energy-saving technologies. The article considers an alternative way of raising funds for innovative start-ups in the field of energy saving, ICOs (ICO stands for Initial Coin Offering). The article, also, analyzes the ICO market with 14 current participants, energy-saving technologies companies. Furthermore, the authors looked at the legislative regulation of this raising capital method in energy saving and energy efficiency in the Russian Fed-

eration and abroad in order to identify the best international experience and its implementation in the Russian legal field. As a result of the research, the authors developed practical recommendations for legal support for upcoming ICOs procedures for companies in this industry.

Keywords: investments, energy saving technologies, energy efficiency, legal regulation of energy saving, lighting equipment, energy saving companies and lighting

1. INTRODUCTION

At present, one of the most important directions in the development of lighting technology is the comprehensive solution of energy saving problems with a view to maintaining the ecological integrity of society. Today, the largest lighting organizations produce energy-saving lighting devices, but such companies face a number of economic and legal difficulties associated with attracting investments for innovative projects [1].

In 2017, in accordance with International Energy Agency global investments in the energy-saving technologies industry increased by 9 % to 261 billion dollars (Fig. 1).

The source: compiled by the author according to the International Energy Agency [2].

However, the investment volume in energy saving (despite a small increase) is still far behind the required for the production of renewable energy sources, improvement of lighting equipment, etc. It should be noted, that according to the International Energy Agency (The IEA), global invest-

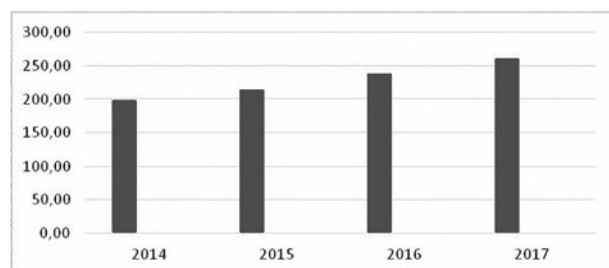


Fig. 1. Global investments in energy-saving technologies from 2015 to 2017, USD billion

ments in the industry should reach \$1 billion per year, which is 4 times more than the volume of investments typical of energy saving [2]. This fact is explained by the analytical centre of the Energy Efficiency Financial Institutions Group (EEFIG) [3]. Having analyzed more than 10 thousand projects in the field of development of energy-saving innovations and improvement of lighting technology, the centre has established the following reasons for the unwillingness of institutional investors financing such projects:

1) The lack of specific tools allowing investors to assess and monitor the investment efficiency in energy saving;

2) Administrative and legal barriers in attracting funds to the industry, consisting of:

- Restriction of foreign investors in equity participation in a company attracting funds;
- The need to coordinate such participation in the state authority;
- The need for state registration of such investments as shares or stakes, etc.

The above is accompanied by the length of the procedures (for example, on average, registration of shares in the United States or Australia takes up to 90 days, taking into account the need to amend the recommendations made by the financial regulator based on the results of the company's bid).

In this regard, there are now alternative ways to raise funds for the implementation of start-up projects in the field of lighting and energy saving – the “Initial coin offering” (ICO) (Table 1).

The source: compiled by the author according to the data of Cryptosale [4].

A distinctive feature of these projects is the release of “crypto-tokens” (digital tokens) within the ICOs – an analogue of digital coins, equated, in these start-ups, either to an energy unit or to a means of payment within the project.

The high popularity of ICOs in the field of energy-saving technologies and lighting equipment is due to the ability to attract investments quickly and in a short time. Since ICOs are marketed on blockchain technology platforms, this allows to purchase tokens online and not to limit the amount of investment. This means that anyone, without significant savings, can invest in a project related to energy-saving technologies and lighting equipment. However, it is worth mentioning that 95 % of all ICO projects are potentially fraudulent [5]. It seems obvious, that the recommendations should take

into account both the interests of investors and the interests of projects raising funds. It is also worth indicated that at present there are no researchers devoted to the ICO in the field under consideration. The exception is some works on general issues aimed at solving the problems of implementing ICOs without studying the field features [6–9].

Thus, the purpose of this article is to develop practical recommendations aimed at establishing the regulation of the ICO procedure, as an alternative way of attracting investments to solve problems with investment deficits in the energy saving technologies and lighting equipment industries.

2. THE SOLUTION

For developing practical recommendations for the regulation of start-ups ICO procedures of energy-saving technologies industry, the following stages of the research were conducted:

1) The statistics of the International Energy Agency were analyzed to identify the countries leading in terms of investments in energy-saving and lighting equipment;

2) The sample of countries received and the legislation of these countries regulating the preparation and launching ICOs by the companies of the industry was analyzed.

3. THE RESULT

According to the International Energy Agency, global investments in the energy-saving technology sector in 2017 amounted to 261 billion dollars. At the same time, the European Union, the United States of America, Canada and China remain the undisputed leaders in this matter (Fig. 2).

Therefore, it will be relevant to consider the legislation governing the organization and implement-

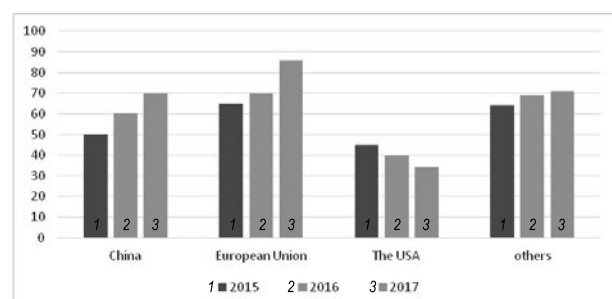


Fig. 2. The volume of investments in the energy saving technologies industry by regions from 2015 to 2017, USD billion [2]

Table 1. ICO Projects Involved in the Development of Lighting and Energy-Saving Technologies

№	Project Title	Implementation Stage	Attracted investments, million USD
1.	Helios Coin (production of alternative energy resources)	ICO launched	0.19
2.	Cryptos lartech (manufacture of solar panels)	ICO launched	83.7
3.	Electrifi.asia (a decentralised energy online marketplace)	ICO launched	0.442
4.	Enegrypreamier (an advanced token-based electricity bidding platform)	ICO is being launched	34
5.	Robotina (production of “green” technologies)	ICO launched	28
6.	SiOcoin (production of an innovative installation for the recycling of technological waste)	ICO launched	20
7.	Energymine (a decentralized world platform for energy-saving lighting equipment trading)	ICO launched	15
8.	Farad (ultra-capacitors development and production)	ICO launched	0.824
9.	Carboncoin (carbon recycling for energy saving)	ICO launched	1.2
10.	Hydrominer (equipment production using hydropower energy)	ICO launched	25
11.	Wepower (a blockchain-based green energy trading platform)	ICO launched	0.941
12.	Suncontract (a decentralized solar energy trading platform)	ICO launched	1.7
13.	Solarcoin (production of solar power)	ICO launched	9
14.	Energycoin (production of renewable energy sources)	ICO launched	5

ing of ICOs by companies in the energy saving and lighting industry in these countries. The exception is China, as the People’s Bank of China banned implementing ICOs in the territory of the country [10].

3.1. European Union

The EU Directive 2012/27 on energy efficiency is currently in force in the European Union. It establishes a general framework for promoting energy efficiency in the European Union, including measures to stimulate investment in the industry. In this regard, there are no quantitative restrictions in this regional association. However, a company

with foreign participation to work in the European Union must meet the certification requirements in order to demonstrate the absence of a threat to the EU’s energy security [11].

In the end of 2017, the European Securities Market Authority (ESMA) established supranational requirements for ICOs in the EU. According to the requirements, companies implementing ICOs in EU member countries are required to independently examine the qualifications of the ICOs in order to comply with the legislative requirements of the European Union, as well as the national legislation of the state where the ICOs is implemented. ESMA specifies that in accordance with Directive

2003/71/ EU on Prospectus Directive [12], the project must provide reliable information to potential investors by publishing a prospectus in case of capital raising. If the ICO project contains signs of a public offering of securities, the publication of the prospectus is mandatory. In addition, the competent authority must approve the prospectus. Consequently, the company must be in full compliance with the national requirements of the EU member state where the project is implemented.

3.2. The USA

In the USA, as in some other countries, most of the resources are consumed inefficiently, which entails huge material losses. According to the American Council for Energy Efficient Economy rating, the United States ranks thirteenth in the world in terms of energy consumption [13]. Based on this fact, the US Government currently focuses on attracting investments in the development of innovative energy-saving technologies.

At present, the USA is one of the safest countries for implementing ICOs. Thus, in July 2017, the US Securities and Exchange Commission (SEC) published a report on The DAO, explaining that US securities legislation is applicable to some operations with crypto-currencies, including (1) releasing tokens as a part of IPOs, as well as (2) operations for their exchange transactions [14]. All participants in cryptoeconomy from issuers to stock exchanges, as well as other participants involved in the offering and sale of tokens denoted as securities, will have to comply with US securities laws [15]. Depending on the circumstances, this may mean that tokens must be registered with the SEC or fall under an exemption to registration in the law.

Thus, tokens are securities, if all of the following requirements that make up the Howey Test are met:

- 1) Capital investments in any form, including cryptocurrencies;
- 2) Participation of investors in a joint venture, regardless of the fact and place of registration;
- 3) Realistic expectation of investors to make a profit (the profit can be in the form of dividends, periodic payments or an increase in the value of tokens);
- 4) Limited participation of investors in the management of the enterprise.

It should be emphasized that in practice, companies often use the exception provided for in “Regu-

lation S” under the US Securities Act. Thus, issuers do not have an obligation to coordinate their actions with the SEC, if their advertising campaigns for the sale of tokens are not aimed at the United States, and selling tokens, companies check that buyers are outside the United States.

At the same time, start-ups of the energy saving industry need to comply with the legislative requirements for such companies. In accordance with the National Energy Law [16], foreign ownership and control over energy facilities are prohibited. Only US citizens have the right to have licenses for the production of power equipment, including energy saving technologies. Restrictions on foreign companies’ participation in projects related to the production of power equipment are also established.

3.3. Canada

As mentioned above, in Canada, there is also an acute issue on the development of the energy saving industry including the problems of attracting private capital in the industry. This is because almost all energy saving activities in the provinces of Saskatchewan, Manitoba, Nunavut and New Brunswick are carried out by state-owned companies. That is why to establish private entities in this industry is possible only in Ontario and Alberta. At the same time, in Canada, there are no restrictions similar to the US law. Under the Control of Electricity and Gas Act [17], companies are subject to the same requirements as other organizations.

Currently, Canada has created favourable conditions for implementing ICOs by companies of the energy-saving technologies industry. In August 2017, the Canadian Securities Administrators (CSA) explained their position regarding ICOs in the published statement [18]. The document states that crypto-tokens must be registered in accordance with the securities laws. Requirements to the legal form are established as for other companies issuing shares, without exception. CSA separately drew attention to the fact that marketing moves to denotation tokens as software products do not affect the nature of tokens, because they are essentially investment tools.

3.4. The Russian Federation

The economy of the Russian Federation (further – Russia, The RF) at this stage is characterized

by high-energy intensity. The specific energy intensity of Russian GDP is 2.5 times higher than the global average [2]. One of the reasons is the lack of financing for companies involved in the development of energy saving. Currently, many Russian companies in the field of energy saving technologies have started to look for ways to attract foreign capital, including ICOs.

At this stage of crypto economy development of Russia, there is no legal regulation of the organization and implementing ICOs. However, by July 2018, the draft law "On alternative ways of attracting investment (crowd-funding)" [19] will be submitted to the State Duma of the Russian Federation. According to the draft law, tokens are considered digital financial assets. ICOs can be marketed on special investment sites/platforms only by Russian legal entities and individual entrepreneurs.

It is worth saying that a company implementing ICOs must comply with the requirements established in the legislation, which depend on its type of activity. There are no restrictions in case, when a company's activities are limited by conducting research and development work. If a start-up is associated with the construction and operation of energy-saving plants, depending on their capacity, a license may be required [20]. The production of energy-saving equipment (for example, LED lamps) requires mandatory certification.

Summing up, the conducted research allows formulating the following recommendations on the regulation of ICOs in the Russian Federation:

1) It is necessary at the level of Government Resolution of the Russian Federation to develop the procedure of implementing ICOs in the Russian Federation. Namely, it is necessary to determine what legal procedures a company should take implementing each stage of an ICO procedure (development of an offering memorandum, offers to purchase tokens, publication of the company's reports, taxes and fee payment, etc.). In addition, this normative act should establish the legal status of tokens, taking into account the best foreign experience. In case, if tokens have signs of securities, companies applying ICOs will have to register them in the securities register. However, if a token is equated to the price of the goods produced (for example, the unit of energy or the means of payment on the site), registration is not required.

2) Russian regulators need to develop explanatory and advisory documents warning that any ICOs

project must comply with all the legislative requirements of the country where it raises funds in the form of ICOs. Such requirements may include restrictions on the legal form of the company, the need to obtain authorization documents, certification of manufactured equipment, etc. Thus, regulators will be able to prevent Russian projects from been prosecuted as a result of ignorance and non-compliance with the legislation of foreign countries.

4. CONCLUSION

Thus, the conducted research shows that at present, launching ICOs, as an alternative way to raise funds, can solve the problem of limited investment in energy saving industry. The leading countries in the industry have already developed loyal legal requirements for companies implementing ICO projects. Obviously, it is necessary to develop a legal and regulatory framework in the Russian Federation to regulate the new economic and legal phenomenon. The recommendations developed by the authors will increase the investment attractiveness of the energy saving industry and help develop ICOs as a promising way of fundraising.

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