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ORGANIZATIONAL-ECONOMIC MECHANISM OF RENEWABLE ENERGY INVESTMENT PROJECTS IMPLEMENTATION

The organizational-economic mechanism of investment development of alternative energy in terms of the energy dependence of the state at the modern stage has been offered and substantiated. The authors proposed the program of activation of investment processes in alternative energy, and also the expected benefits from its implementation are considered.

Keywords: *investment process, organizational-economic mechanism, investment projects, renewable energy.*

Introduction. The use of alternative energy sources has a global perspective for the further successful development of civilization, because there are phenomena that violate the stability of civilized society development in the world: traditional energy sources run out, increase in the value of their reproduction, intensely polluted environment, destroyed biosphere, an excess amount of organic waste of industrial, agricultural and domestic origin is formed. However, the development of alternative energy requires activation of investment processes in this area at the present stage. Taking this into consideration, the problem of development of organizational-economic mechanism of renewable energy in investment projects implementation is highly relevant today.

The purpose of the article is the development and rational of the organizational-economic mechanism of renewable energy investment projects implementation, as well as identifying the main levers of influence factors and block of its implementation.

Brief Literature Review. The study of theoretical and methodological aspects of improving and increasing the efficiency of the investment process, including energy, considered in studies of I. Blank [1], P. Korenyuk [2], T. Mayorova [3], A. Peresada [4], V. Potapenko [5], A. Udalikh [6], Y. Zhalilo [7], A. Glen [8], C. Jones [9], B. Esty [10].

However, despite the significant achievements of these authors remain poorly understood issues related to the definition of organizational-economic mechanism of renewable energy investment projects implementation in terms of the energy dependence of the state at the modern stage.

Results. At the present stage the organization and effective functioning of the process of investment development of alternative energy received considerable attention. We identified several areas in which there can be actions directed on activation of investment process in the field of alternative energy. All the spheres are interrelated and have mutual influence. Implementation or activation of factors of one group will have a positive impact on all spheres of influence on this process. Qualitative and quantitative improvement of each of the factors will increase the volume of investment resources from the respective areas and, as a result of their interaction, from other sources of investment resources.

Priority in the offered mechanism are actions of the state, because they affect the possibility of implementing measures from other areas and can carry out activities in order to achieve social impact in the field of alternative energy, not for profit, and also to incentive measures in relation to energy to increase opportunities to attract additional resources [11]. Each of these areas of impact on the formation of investment resources has its own

characteristics and methods of regulation. Successful investment process can be described only if positive results from it will be received by both the parties involved in its implementation, the investor and the investment object.

The basis for effective development of investment in alternative energy processes is universal, not detailed, planning of these activities aimed at the achievement of the desired results, achievement of a certain goal.

The authors have presented the offered organizational and economic mechanism of the investment processes in alternative energy through the development and subsequent implementation of its development programs (see fig. 1).

The main components of institutional support for investment in alternative energy in Ukraine are the state regulatory framework, the current organizational structure of the management system and tools used by it for the implementation of tasks.

The basic principles of the state policy in the field of alternative fuels are:

- increasing production and consumption of energy produced from alternative sources, with the aim of efficient use of conventional energy resources and reduction of Ukraine's dependency on importing them by restructuring the production and rational energy consumption by increasing the proportion of energy generated from alternative sources;

- compliance with environmental safety by reducing the negative impact on the environment during construction and operation of alternative energy facilities, as well as transmission, transportation, delivery, storage and consumption of energy produced from alternative sources;

- observation of safety for the health of people on the objects of alternative energy on all stages of production, and also at a transmission, transporting, supply, storage and consumption of energy received from alternative sources;

- scientific and technical support for alternative energy development, popularization and application of scientific and technological achievements in this field, training of relevant professionals in higher and secondary educational institutions;

- no breach of laws by all the subjects of relations connected with the production, storage, transportation, supply, transmission and consumption of energy produced from alternative sources;

- observance of terms of rational consumption and economy of the energy produced from alternative sources;

- attracting domestic and foreign investment and encouraging entrepreneurship in the field of alternative energy sources, including the development and implementation of national and local programs for alternative energy development.

Organizational activities in the field of alternative energy sources include:

- identification of sources and direction of financing activities in the field of alternative energy sources;

- connection of objects of all forms of property that produce energy from alternative sources to the united energy system of Ukraine by the enterprises of electric networks (energy supply companies);

- creation of a statistical database on the resources of alternative energy sources;

- confirmation of compliance of the energy generating objects with the objects of alternative energy.

State regulation in the sphere of alternative energy sources is carried out by:

- development, approval and implementation of norms, rules and standards of production, transmission, transportation, delivery, storage and consumption of energy produced from alternative sources;

- supervision and control for safe execution of work on alternative energy facilities, regardless of their form of ownership, safe operation of energy generating equipment and transmission modes and energy consumption;

- supervision and control over compliance with requirements of technical operation on the alternative energy facilities, regardless of their form of ownership, maintenance of power equipment of objects connected to the unified energy system of Ukraine;

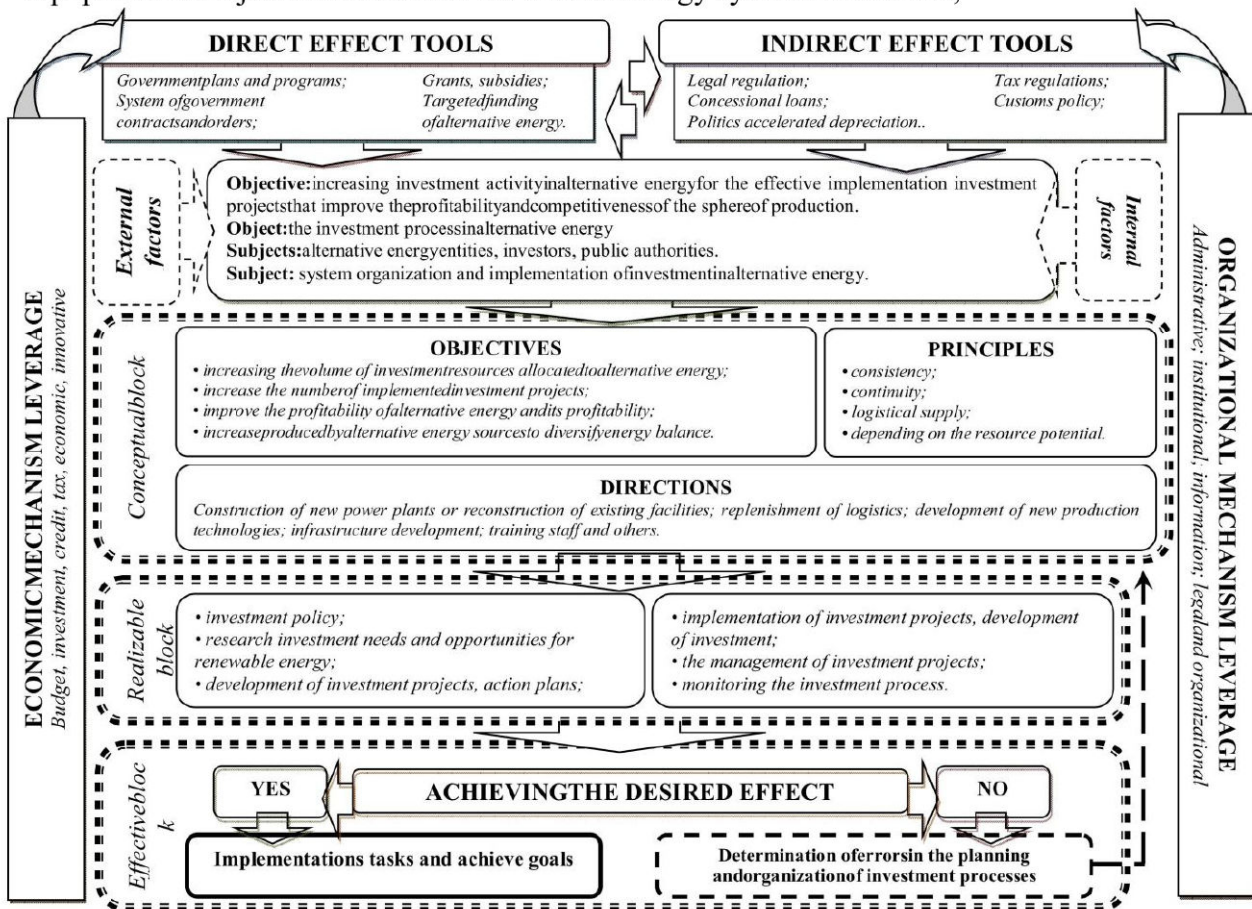


Fig. 1: Organizational-economic mechanism of renewable energy investment projects implementation

Source: compiled by the author

– establishment of amounts of charge for electric energy produced by alternative energy facilities, and thermal energy produced from alternative sources;

– comprehensive promotion and support of research, experimental design, and the activity of inventors and rationalizers, aimed at development of the production and use of alternative energy sources.

Analyzing the views of leading industry experts and scientists, it can be said that state administration in the energy sector is not sufficiently effective. The most controversial issue is the need to improve the existing institutional infrastructure to ensure the effective control and regulation of energy. However, certain issues of supervision and control over the activity of enterprises in the energy sector are the responsibility of many government bodies, so it would be reasonable to reorganize them into an independent institutional structure to ensure the effectiveness and completeness of the monitoring of project works and field development and supervision in the sphere of subsoil use.

The main directions of state regulation of development of alternative energy in Ukraine, which will improve the efficiency of its operation and the country's energy safety, according to leading scientists, can be the following:

- providing the differentiation of the sources of energy supplies to Ukraine, but the solution of this issue is complicated due to numerous problems of a political, technological and economic nature. However, the government policies should be aimed at the

harmonization of conflict issues and ensuring the diversity of selection of suppliers of resources;

- technological update of the material base of the fuel and energy complex, which will provide cheaper energy and fuel;

- territorial rationalization of location of energy companies to ensure the reduction of transport costs;

- support of development of unconventional energy sources, including taking into consideration their geographical allocation. Predicted data of world dynamics of the use of unconventional sources of fuel and energy resources indicate the growth of their part in general balance (predicted growth is in 0,5%).

- implementation of rational use of equipment of fuel and energy complex with the possibility to use individual items of fixed assets to meet the needs of new research directions;

- the promotion of scientific and applied research in the field of energy supply.

Conclusions. Thus, alternative energy is the basis of providing power safety of the country, that underlines the large value of the offered organizational-economic mechanism of the investment providing development of alternative energy in the conditions of power dependence and certain basic levers and factors of influence, and also blocks of its realization by means of the program of development of alternative energy. Realization of the Program project will allow to activate investment activity in alternative energy that will have positive influence not only on energy, but also on the country on the whole.

Influence on the separate elements of organization of production of alternative electric power will assist bringing in of additional volumes of investment resources in this sphere from different sources, promoting the amount of investment projects that will be realized. The increase of level of the resource backing of alternative energy will allow promoting the investment attractiveness of this sphere and attracting the additional investments of both local and foreign investors.

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