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## **ORGANIZATIONAL AND ECONOMIC MECHANISM OF ENERGY SAVING AT ENTERPRISES**

***Summary.** The essence of formation of organizational and economic mechanism at the enterprises and its interpretation is investigated. It is established that today there is no single scientific approach to the interpretation of the concept of "economic mechanism" and "organizational and economic mechanism". Based on the analysis of literature sources on the problem of studying the essence of organizational and economic mechanism of energy saving, it is proposed to the concept of organizational and economic mechanism of energy saving, which includes a system of interconnected economic and organizational components, which includes a system of interconnection of economic and organizational warehousing funds that contribute to the economic consumption of energy resources and their introduction into production, taking into account innovative achievements.*

*The proposed organizational and economic mechanism will help reduce energy dependence, increase the competitiveness of industrial products and the efficiency of innovative technologies in enterprises. It is noted that energy saving is a type of resource-saving activity at the enterprise, which is aimed at reducing the cost of fuel and energy resources or replacing one type of energy resource with another. The main tasks of the mechanism are stated. It is determined that the organizational and economic mechanism of energy saving in*

*enterprises includes organizational and economic levers of influence on economic and organizational factors of energy saving in the production of a unit of production. This helps to increase the economic potential and efficiency of enterprises. To achieve the project level of energy efficiency in enterprises, the mechanism provides economic incentives and incentives for employees.*

*It is revealed that the essence of the organizational and economic mechanism of energy saving at the enterprises provides effective use of economic, technical and organizational measures on energy saving. Significant energy savings in practice are achieved through the use of financial and economic measures, including economic and market mechanisms, advanced technologies, favorable energy tariffs, which ultimately affects the significant economic effect on the enterprise. The essence of the organizational and economic mechanism of energy saving ensures the effective use of economic, technical and organizational measures for energy saving.*

**Key words:** *mechanism, energy saving, energy resources, enterprise, products.*

**Statement of the problem.** In order to reduce energy costs during production and reduce its cost, companies use international standards and energy-saving technologies. It should be noted that the introduction of organizational and economic mechanism in production will increase its competitiveness. To ensure the successful functioning of the organizational and economic mechanism of energy saving requires the successful operation of all its components. However, today there is no single scientific approach to the interpretation of the concepts of "economic mechanism" and "organizational and economic mechanism". As this problem is relevant, it needs further study.

**Analysis of recent researches and publications.** The study of outstanding Ukrainian scientists, which is presented in Maevsky V., Gumenyuk V.Ya., Roshchik I.Ya., Shkurupiy V.O., Goncharenko V.V., Artemenko I.A.,

Buleev I.P., Shevchenko M.G., Shevchenko O.O., Kozachenko G.V., Polozova V.T., Ovsyuchenko Yu.V., Polozova T.V., is devoted to the problem of studying the introduction of organizational and economic mechanism in production [1, p. 13–17; 2; 3, p. 219; 4, p. 248; 5, p. 225; 6, p. 312; 7, p. 28-36; 8, p. 63-65]. Some scientists, for example, believe that the "economic mechanism" is a component of the economic mechanism, which covers the planning and stimulation of production processes [1, p. 13-17]. And, in particular, Gumenyuk V.Ya., Roshchyk I.Ya., Shkurupiy V.O., Goncharenko V.V., Artemenko I.A., in their works they emphasize that in their opinion two subsystems of relations are formed: "organizational-economic and socio-economic", so it is advisable to use the term "organizational-economic mechanism".

Buleev I.P., in his monograph considers the impact of financial and economic mechanism on the implementation of state target programs. Shevchenko M.G., Shevchenko O.O., in their works, reveal the possibility of using the organizational and economic mechanism as a tool for enterprise management. In his work Kozachenko G.V., interprets the essence of the organizational and economic mechanism at industrial enterprises is substantiated and outlined, as a set of management methods.

Thus, the domestic scientific literature today does not offer a single approach to the interpretation of such concepts as "economic mechanism" and "organizational-economic mechanism".

**Formulation purposes of article.** Clarification of the essence and interpretation of the concept of organizational and economic mechanism of energy saving and its implementation in enterprises.

**The main material.** To achieve this goal, it is necessary to clarify the essence and interpretation of the concept of organizational and economic mechanism of energy saving in enterprises and the factors influencing energy savings. We believe that such a mechanism should combine organizational and

economic goals, incentives and measures aimed at saving energy in enterprises, using a variety of management tools.

**Presenting main material.** On the basis of the analysis of the literature sources devoted to a problem of studying of essence of the organizational and economic mechanism of energy saving, we offer definition of this concept.

The organizational and economic mechanism of energy saving is a system of interconnected economic and organizational components that contribute to the economical use of energy resources and the implementation of energy saving measures in enterprises, taking into account innovative achievements. The proposed organizational and economic mechanism will help reduce energy dependence, increase the competitiveness of industrial products and the efficient use of innovative technologies in enterprises. Today, there is no single approach among scientists to define the concept of "energy saving". Therefore, the study used various sources of information and analyzed the definition of "energy saving" [9, p. 255].

This was the basis for the development of scientific approaches to the definition of this concept. In particular, the concept of "energy saving" is considered in the law of Ukraine "On energy saving" [10].

According to the Law of Ukraine "On Energy Conservation", the object is the rational use and economic consumption of primary and transformed energy and natural energy resources. It should be noted that energy saving is a type of resource-saving activity at the enterprise, which is aimed at reducing the cost of fuel and energy resources or instead of one type of energy resource to another. In modern market economy, the formation of organizational and economic mechanism of energy saving at the enterprise is an urgent problem, because its solution will allow to use energy sparingly in the production of competitive products. At the same time, the introduction of organizational and economic mechanism of energy saving in the production process will help reduce the energy dependence of the enterprise on the generating company. Organizational

and economic mechanism of energy saving at the enterprise covers organizational and economic levers of influence on economic and organizational factors of energy saving in the production of a unit of production. These methods help to increase the economic potential and efficiency of the enterprise. Given this, there is a need to determine the essence of the organizational and economic mechanism of energy saving in the enterprise, to justify the criteria and principles of its formation [11].

Implementation of the concept of energy saving at the enterprise requires the solution of the following tasks: substantiation of the purpose and main directions of formation of the organizational and economic mechanism of energy saving; determination of the basic principles of formation of the mechanism; formulation of stages of construction of the mechanism; analysis of methods of efficiency of energy saving realization; research of tools and resources for the implementation of this mechanism; development of means and methods of control of efficiency of realization of the mechanism. The purpose of creating an organizational and economic mechanism of energy saving in the enterprise, according to the authors of the monograph "Innovative development of industrial enterprises: analysis and evaluation" [12, p. 99-106], is the company's profit and financial stability, based on rational use of energy saving potential. The main tasks of the mechanism are: development of technical, economic, organizational and production restrictions on the irrational use of energy resources at the enterprise; motivating and stimulating employees of the enterprise to save energy resources and offering the management of the enterprise areas of conservation of electricity and natural resources; implementation of economically justified energy saving measures; monitoring of the process of implementation of energy saving measures.

The following principles can be used to form the energy saving system at the enterprise: the activity of the energy saving enterprise must meet the requirements of legislative and regulatory documents of the state; – energy

saving measures are applied in the divisions of the enterprise; Management of energy management of the enterprise offers a number of directions of economy of energy resources; – energy saving measures should be implemented by employees of the enterprise; –economic incentives for employees to achieve a high level of energy saving [13, p. 444]. In case of change of operating modes of the enterprise, cost of the consumed energy carriers, volumes of manufacture it is necessary to make adjustment of administrative decisions. In our opinion, the introduction of organizational and economic mechanism of energy saving of the enterprise should be applied in stages: first, the first stage –the involvement of a group of energy managers in energy saving measures; –the second stage – the creation of an inspection to oversee the use of funds from the energy saving fund;–the third stage covers the process of development and implementation of the mechanism in production; –fourth stage – implementation of energy saving measures; –the fifth stage – adjusting the parameters of the organizational and economic mechanism.

In order to increase the efficiency of energy saving in the enterprise, Jejula V.V., in his monograph [14, p. 347]. He proposes to use the following criteria: increase energy saving potential, reduce energy load on the network of stations, increase renewable energy in the energy balance at the enterprise and use a motivational mechanism. It should be noted that the criteria need a comprehensive assessment, as each of them in itself cannot be an absolute indicator of the effectiveness of the implemented measures. Organizational and economic measures can be carried out with the help of external financial resources or own and borrowed funds. Motivation is a tool that contributes to the implementation of organizational and economic mechanism in the enterprise. It provides a bonus to employees for energy savings, bonuses and social packages, as well as rewards with valuable gifts. Motivation encourages employees to be persistent in the process of performing a production task.

In order to ensure the effectiveness of the implementation of energy saving measures through the organizational and economic mechanism, economic incentives and incentives for employees to achieve the project level of energy efficiency. Energy savings are achieved by providing companies with tax benefits. Manufacturers of energy-saving equipment, machinery and materials, means of measuring, controlling and managing fuel and energy consumption, as well as manufacturers of equipment that ensure the use of non-traditional and renewable energy sources and alternative fuels in production processes also benefit. Legal entities and individuals also receive subsidies, grants, benefits (tax, credit) to encourage the use of energy-saving technologies, equipment and materials. Financial incentives contribute to the efficient use of traditional energy resources and the development of alternative energy. Stimulating the introduction of renewable energy in Ukraine is carried out through a "green" tariff for electricity produced from alternative sources, and the provision of customs and tax benefits. It should be noted that today in the budget sphere there are no effective incentives for energy saving.

The economic mechanism of motivation for the introduction of energy-saving technologies at the enterprise is based on the provisions of legislative and regulatory support of energy saving, state control and regulation, which meet the requirements of reducing the energy intensity of production processes. Pricing should reflect the true ratio of production costs, energy transportation and consumer solvency. Effective governance and self-government should promote the rational use of energy, information provision and promotion of best national and foreign practices, training of production staff and the population on the economic use of energy resources [15, p. 154].

Considerable attention should be paid to the company's management to maintain employee motivation, as unfair or non-transparent distribution of material incentives among employees will lead to reduced motivation and in some cases to the opposite effect – harm. Therefore, it is necessary to involve



employees in the management of the enterprise and thus form a complete picture of the processes taking place. Awareness of problems and successes, participation in the redistribution of finances will allow employees to avoid situations of injustice.

An effective measure that helps to increase the level of energy saving in the enterprise is a salary that will encourage employees to save energy. The company can financially stimulate its employees for the results of work, in particular, to save energy, as well as bring them to financial responsibility for energy consumption.

In our opinion, the funds received from energy saving should be accumulated in a special energy saving fund. It will serve as a source of funding for energy saving measures. The creation of an energy and resource saving fund at the enterprise will provide an economic basis for a set of energy saving works. The creation of such a fund at the enterprise, in particular, will contribute accumulation of funds for the implementation of energy efficient projects and the implementation of energy saving programs, – stimulating the company's staff to implement energy saving measures, – improvement of material and technical base of energy service of the enterprise; – financing of research works on the problem of energy saving, – repayment to banks of loans obtained for the implementation of energy saving measures [16, p. 5-14].

Thus, the presence of an energy saving fund at the enterprise will help to solve a number of production problems. Organizational and economic mechanism of energy saving includes a number of measures that promote the efficient use of energy saving potential during the implementation of production processes.

It should be noted that real energy savings in practice are achieved through the use of financial and economic measures, which include economic and market mechanisms, advanced technologies [17, p. 368] and favorable energy tariffs. Thus, the essence of the organizational and economic mechanism



of energy saving at the enterprise ensures the effective use of economic, technical and organizational measures for energy saving.

**Insights from this study and perspectives for further research in this direction.** Organizational and economic mechanism of energy saving in enterprises includes organizational and economic methods of influencing economic and organizational factors of energy saving in production per unit products. In turn, this helps to increase the economic potential and efficiency of the enterprise. The basis for the creation of organizational and economic mechanism of energy saving in enterprises is the company's profit and its financial stability, which based on the rational use of energy saving potential. Thus, the organizational and economic mechanism of energy saving is a system of interconnected economic and organizational components that reduce energy costs and direct the introduction of energy-saving technologies into production, taking into account the benefits of innovative achievements.

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