PROSPECTS OF USING ENERGY-EFFICIENT SOLUTIONS IN THE DESIGN OF SPECIALIZED SCHOOLS

Abutova Nazigul Baxtıyarovna
Graduate student of Karakalpak State University.

Abstract. *One of the most important components of the problem of effective use of energy resources in specific sectors of the national economy of the republic is the training of specialists with knowledge in the field of energy saving. Therefore, the purpose of the presented article is to provide information about the world experience in the field of energy saving in the future energy sector and to shed light on the prospects of using energy-saving solutions in the design of specialized schools in the conditions of Karakalpakstan.*

Keywords: *energy, underground resources, new reforms, the Republic of Karakalpakstan, energy saving projects, etc.*

Thus, the world around us has various forms of inexhaustible sources of energy. Currently, some of them, ie, solar energy, energy generated by the interaction of the sun and the moon, thermonuclear fusion energy, geothermal energy, are not fully exploited. Today, the energy solution plays a role in the development of the human body. There is an inextricable correlation between the volume of product production and energy consumption. Energy is of great importance in human life. Its level of development reflects the level of development of society's productive forces, opportunities for scientific and technical development, and the standard of living of the population. It's a pity. most of the energy consumed by humans, is turning into useless heat due to the low efficiency of using available energy resources. The energy value in this table is given in megatons (Mt) of the amount of coal that provides the energy available when burned.

The increase in energy consumption is surprisingly high. but as a result of this, a person has to rest a significantly larger part of his life. to education. can devote to creative activities and as a result longevity is achieved. We believe that energy is necessary and has the ability to function. Providing energy to society is divided into the following, i.e., heating buildings, providing movement, producing the products we need, ensuring the ability to operate various machines, mechanisms, equipment, cooking, lighting, life it is necessary for ensuring the activity and others. These examples of energy storage can be divided into the following three broad groups:

a) Food energy. It is more expensive than other forms of energy: wheat is much more expensive than coal when converted to joules. Food provides heat to maintain body temperature, energy for movement, mental and physical work;

b) energy in the form of heat to heat homes and cook food. It allows people to live in different climates and have a variety of food;

c) energy that ensures the production of society. This energy is necessary for the provision of goods and services, the personal movement of people and goods in space, and the ability to operate all systems of communication. This energy consumption per capita is significantly higher than energy consumption for food.

The experience of implementing energy conservation policies in developed countries shows that there are three main directions of energy conservation. The first effective, low-cost direction for the initial stage of the implementation of the energy saving policy is the rationalization of fuel and energy consumption. Economic costs are impractical, the main pressure, along with the creation of economic foundations, an organizational measure is implemented, in which YoER producers and consumers are mobilized to save energy. The analysis of foreign experience shows that 50 to 70% of the realized energy saving potential is primarily due to organizational measures. This is, first, to stop the release of non-competitive products. industry, is to eliminate expenses in agriculture and household utilities. Due to the implementation of this route, the demand for fuel and energy can be reduced by 12-15%. The second direction is the structural restructuring of the economy and the development of energy-intensive and less energy-intensive sectors. related to changing speed. For example, the energy capacity of light industry, service sector, and construction is 8-10 times less than that of the fuel and energy sector, and 12-15 times less than that of metallurgy. The reserve for reducing the demand for fuel energy resources due to structural changes in the economy can be 10-12% of the current consumption. The third direction is the implementation of energy-saving technologies, including renewable resources (solar, water and wind energy), process, tools and equipment are located in the highest energy capacity areas. In addition, energy-saving technologies are environmentally friendly and do not require additional costs in solving social problems. Another important trend in the world electricity industry, leading to energy savings, is the ubiquitous implementation of steam-gas plant (SPP) and heating, under this concept lies the combined production of heat and electricity in thermal power plants (thermal power centers - IEM). . Heating is the most rational way of using fuel resources. Recently, co-generation (trigeneration) of electricity, heat and cooling is used in the world, which increases the efficient use of fuel. The adoption of steam-gas technologies is explained by the following reasons: compared to steam turbine devices, the economy of thermal power plants increases significantly: that is, FIC increases from about 33% to 55% and more, the emission of carbon dioxide gas and other toxic substances decreases, and maneuvering increases. Currently, BGQ units with a unit capacity of up to 500 MW are in use.

The currently existing trend of the decrease in the efficiency of the electric power sector of Uzbekistan is due to the sharp deterioration of the material, technical and financial support of the electric power equipment, the low quality of

measures for the maintenance and repair of equipment and equipment from damage and its wear and tear, and the energy and due to significant deterioration of economic indicators. The decrease in the efficiency of the technological equipment is deepened by the increase in the price of fuel and the non-compliance of the low specifications of the delivered energy. which prevents adequate reinvestment of production revenues, the growth that drives the industry forward. In order to satisfy the increasing demands for electricity, based on the possibilities of electricity production, in the conditions of the expected growth of the indicators of the economy of Uzbekistan, one of the main ways in the future is the adoption of measures that cannot be delayed in order to save energy in all sectors of the economy, including the energy sector. According to preliminary calculations, the potential of energy saving in the field can be 30% of the energy saving potential of the republic. The main indicator of efficiency in the production of electric energy - the comparative consumption of fuel has increased in the last decade and is now 375.92/kWh (2007). Overloading of electric power transmission lines due to overloading, Due to the lack of measuring devices, the technological costs of energy transmission and the total waste of the system as a whole have increased and are 13.8%. An increase in the price of energy resources leads to an increase in the fuel energy component of the product cost. This leads to a decrease in the energy efficiency of the manufactured product and, ultimately, to a decrease in the gross domestic product. Therefore, the practical application of energy saving reserves is one of the necessary factors to increase the level of uninterrupted and reliable energy supply, moreover, in the conditions of the developing economy of Uzbekistan. is a factor that ensures economic satisfaction of internal energy requirements.

In Karakalpakstan, the task of developing proposals for the provision of a plot of land for the construction of individual housing for the population is also set. "True, we put an end to this practice, and there is no such opportunity in other regions. However, I am ready to make an exception, taking into account the appeals of the residents of Karakalpakstan. "It should be based on a well-designed, fair and transparent system," said the president. The Center for Economic Research and Reforms presented an infographic showing the development results of the Republic of Karakalpakstan in the last five years. In it, experts paid attention to the main changes in the socio-economic development of the active reforms that took place in the region in recent years. Fuel and energy economy in power generation One of the most important solutions leading to the adoption of effective measures is to improve the definition policy. The current low tariffs for electric energy sufficiently implement the necessary measures to increase the economic efficiency of the sector's operation. The application of definitions based on the actual costs of production creates the necessary financial base that ensures the priority and efficient operation and development of the electric power industry. In the conditions of transition to market relations, the financing of energy saving

measures is aimed primarily at the use of the company's own funds, and at the same time attracting foreign loans and investments.

Despite the long-term practice of systematically reducing the relative costs by normalizing the consumption of electric energy and other types of energy resources and improving the implementation and use of more advanced methods and production schemes, despite the current normalization of energy resources and reporting on their use, energy There are a number of shortcomings that reduce the positive results of saving resources. The reports of the enterprise show that in the previous report of the enterprise, the entire nomenclature of the main energy-intensive products and the expenditure spent on the production of various forms of energy resources are shown. in the following years, in order to simplify the report, only one or two of the most energy-efficient energy resource norms for chemical products, that is, these energy-intensive products presented in the report allegedly consume a lot of energy resources, while other chemical products do not require costs, such "simplification" of the report, it distorts the actual consumption of energy resources and has a negative impact on the economy of heat, fuel and electricity. Reliability service in energy industry should be mentioned. The need for such a service is great. Chemical plants are getting bigger and their energy supply scheme is getting more complicated in terms of both electrical and thermal parts. Reliability of power supply elements in conditions of continuous power supply demand is higher. should be Only in this case can economy of energy resource consumption be ensured. Among the organizational measures that tend to ensure the economy of energy resources, it is possible to include the extensive participation of energy and technologist teams of chemical enterprises in the development and implementation of rationalization proposals. The second main direction of saving energy resources, as mentioned earlier, is technical measures. They are related to making important changes in the work of production devices and technology, that is, they are related to the most energy-consuming sphere of the enterprise. Among such measures, first of all, the optimization of the operating mode in terms of its main parameters and usage time, given parameters (for example, it is necessary to provide control of the parameters of the steam entering the enterprise). In the presence of several supply inputs, a joint operation scheme must be developed that ensures the reliability of supplying energy to them and the least wastage.

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