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THE MAIN FORMS OF SAVING AND RATIONAL USE OF FUEL AND ENERGY RESOURCES

The main source of fuel energy are petroleum products. A significant role is also given to electricity, natural and liquefied gas. Such types of energy sources as coal, firewood, etc. are not excluded. Research on energy-saving technology in Ukraine, as well as the formation of mechanisms for the implementation of energy-saving measures of industrial enterprises, were carried out by national and foreign scientists: O. Amoshi, V. Geyets, V. Jejulya, K. Ridle, R. Toud, P. Nemisha, I. Mikhailenko, T. Afonchenkova, V. Bevza, K. Dokunina, T. Serdyuk, Ram Gopal & other, Y. Chistova, Y. Vovk, I. Ippolitova and others [1-10].

Prices for fuel and energy resources (PER) significantly affect the share of various energy sources in the structure of consumption, as well as the quality of energy use.

In this regard, pricing is designed to become an integral element, policies to stimulate energy savings. The pricing process takes into account a limited number of traditional PER. According to scientists and practitioners, an increase in fuel prices inevitably leads to its savings, which at the initial stage is expressed in a decrease in the consumption of PER without changing the technology and re-equipment of production.

At the second stage, consumers seek to find ways of energy saving by improving energy supply measures, modernizing energy transformation processes. Finally, at the third stage, the introduction of improved technological techniques begins, ensuring greater efficiency, utilization of traditional types of energy, as well as active involvement in the production of alternative energy carriers.

The main role in stimulating the economical expenditure of the PER is given to the state. Through the adoption of relevant legislative and regulatory acts, the implementation of a competent policy of prices and taxes, the state is able to provide some restrictions on energy consumption. For the implementation of measures for the rational use and saving of energy, benefits, loans, subsidies, subsidies should be provided and thereby energy saving should be stimulated. To date, there are several areas of projects for saving and rational use of fuel and energy, the implementation of which gives both an almost instantaneous and promising economic effect.

The first stage is organizational and economic. The primary forms of saving and rational use of PER within this direction should be considered the optimization of the structures of economic entities, taking into account the potential capabilities of the natural climatic zones of their placement, rationing of fuel consumption, heat and electricity, accounting, control and stimulation of savings of the PER, organization of rational operation of power equipment.

The second, no less important and significant direction of rational use and economy of PER is technological, which involves the change or attraction of new, less energy-intensive technologies. An important point in determining and implementing the scientific and technical policy of energy saving of the state should be the development of a progressive system of machines and technologies.

Only in a specific technology for the production of a certain type of product can one assess the influence of a particular machine on the final result – its true efficiency. At the same time, its energy efficiency, versatility, and metal intensity are revealed.

Therefore, the third direction of rational use and economy of PER should be considered the technical direction, within which a significant reduction in the specific consumption of fuel, heat and electricity is based on the introduction of fundamentally new machines and mechanisms. The possibility of operating modernized equipment is not excluded. At the same time, the modernization of technical means is designed, ultimately, to achieve a higher level of energy efficiency, otherwise it is worth replacing them with more advanced technical means.

In modern conditions, an important role is played by the automation of regulation of the use of energy resources in optimal modes. This process involves the active introduction of devices and automated systems for accounting and monitoring fuel and energy consumption in fuel and electrical networks, boiler installations, directly into the electric receiver. Numerous electric receivers, during the operation of which energy saving measures are carried out, should be considered electric drives of machines, electrical heating and lighting devices. The efficiency of electricity transmission by power grids is significantly influenced by their configuration and loading of electrical equipment.

So rural electrical networks have a large length and low density of loads, are most often built in the form of radial lines with a minimum number of jumpers that ring. This eliminates the possibility of organizing optimal flow divisions and causes

an additional voltage drop and loss of electricity in the networks, thereby increasing the cost of its transmission.

The fourth direction is structural and energy, which allows in the future the replacement of scarce energy resources with cheaper and more affordable types of energy, for example, solar energy, wind, heat of geothermal waters, energy of water tides, agricultural waste.

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РЕКОНСТРУКЦІЯ ОПАЛЮВАЛЬНОЇ ВОДОГРІЙНОЇ КОТЕЛЬНІ

Системи теплопостачання житлових будинків в залежності від потужності поділяються на автономні, децентралізовані, помірно-централізовані, централізовані.

Для теплопостачання споживачів досить часто використовують котельні стан яких в Україні на сьогодні дуже невтішний – котельні переповнені застарілим неефективним обладнанням, що надто часто вимагає ремонту, інколи навіть під час опалювального періоду.