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ANALYSIS OF THE STATE OF THE ENERGY SAVING PROBLEM AND
THE MAIN WAYS OF SOLVING IT

At present, the fact of the interrelation between energy conservation, which ensures a reduction in fuel and energy consumption per unit of manufactured products, and the global problem of the planet's ecology is becoming more obvious. According to studies conducted at the end of the last century, the energy conservation potential is about 1/3 of the total volume of consumed primary resources. The consumption of primary energy resources per unit of gross domestic product in our country is approximately 1.3 times higher than in the USA, and 2 times higher compared to the leading Western European countries and Japan.

Among the main reasons for the unfavorable situation in the area of energy intensity of the economy, it is necessary to name the almost complete absence of state policy in this most important area. The consequence of this is the complete absence of economic incentives for energy saving and lack of interest at all levels of management, in workplaces and among the population in ensuring the rational use and economic expenditure of fuel and energy. This has become especially noticeable with the change in the energy management system and forms of ownership, with a high degree of wear of the main and auxiliary equipment. At the same time, it should be noted:

- extremely low level and equipment of energy consumers with means of accounting and control over the consumption of energy resources;
- high energy consumption of production processes due to a large proportion of equipment that does not meet modern world standards;
- lack of qualified management and engineering personnel in the field of energy conservation;
- lack of energy saving literacy among the population.

In our country, energy saving issues have historically been resolved and will be resolved in two global directions:

- energy saving during generation of electric and thermal energy at power plants;
- energy saving in the sphere of energy consumption.

In the first direction, research, design and installation work is being conducted and will be intensively developed to improve the efficiency of existing power plants, since most of the main and auxiliary equipment of 200 and 300 MW power units has exhausted its service life (physically and morally obsolete), then for safety reasons the parameters of steam and water in them have been reduced. The capacity of 200 MW power units has been reduced to 170-180 MW, and 300 MW power units to 280 MW, i.e. they are operated in non-design, non-economic modes. This has led to a decrease in their efficiency by 4 percent or more.