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ECONOMIC TECHNOLOGIES IN ELECTRICAL ENERGY SYSTEM IN INDUSTRY

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Abstract
In this article, the training of qualified young specialists with knowledge and skills in the rational use of energy-saving resources of industrial technologies plays an important role in solving the above urgent task. In particular, local manufacturers and foreign enterprises are involved in the development and installation of coal-fired boilers, this information is detailed in the article.

Keywords: Electric power, unconventional and renewable energy, fuel power, enterprises.

Introduction
The issue of rational use of energy resources has always been considered an urgent task on the agenda. In today's era of ever-increasing demand for energy resources, this issue is becoming more urgent. Today, the fact that energy saving has risen to the level of state policy can be seen in the examples of decrees, decisions and a number of regulatory documents adopted in this direction in recent years. As a logical continuation of such practical work, new energy saving technologies are being introduced in the technological processes of industrial enterprises, household consumers and other types of energy consumption objects based on world standards. Based on this, the training of qualified young professionals with knowledge and skills in the rational use of energy resources plays an important role in solving the above urgent task.

Research materials and methodology

In this regard, the main tasks and functions of the oil and gas inspection in the field of energy efficiency improvement and resource saving are: - compliance with the requirements of regulatory legal documents and the implementation of measures to reduce them in the processes from the extraction of hydrocarbon products to the production of finished products in economic sectors, and conducting state control over rational use in economic sectors and social sphere; - participation in the development and implementation of state programs aimed at saving energy in the economy, monitoring their implementation, energy efficiency assessment, and conducting energy audits and expertise for consumers of oil, gas, gas condensate and their processing

products coordination; - as a result of the introduction of energy-saving technologies in energy sectors, increasing energy efficiency in organizations, comprehensive preventive measures carried out by "Ozneftgazinspeksia", 202 (36%) ready-made brick production enterprises and 155 (27 %) transition of greenhouse farms from natural gas to coal fuel and savings of more than 360 million cubic meters of natural gas per year have been achieved. Also, as a continuation of these works, today, according to the decisions of the President of the Republic of Uzbekistan dated May 23, 2019 No. has been researched and practical work is being carried out on the issue of providing coal fuel with high heat-generating capacity to gradually switch to alternative fuel (coal) for enterprises that are not energy efficient. In particular, local manufacturers and foreign enterprises are involved in the development and installation of coal-fired boilers. By fully implementing the tasks mentioned in the decision, for the further development of the republic's economy, more than 5 billion cubic meters of natural gas, which is a ready-made raw material, will be saved during the year, and in turn, the amount of expenses spent on fuel resources by business entities will decrease and the cost of products will decrease. will come. Energy efficiency is one of the main tasks of Ozenergoinspection, in the development of concepts and state programs for the development of the main sectors of the economy, increasing their energy efficiency and reducing energy density, efficient production, transmission, distribution and consumption of electric and thermal energy. It is actively involved in proposals for the production and use of coal, reducing energy density on a systematic basis for the efficient use of electricity and thermal energy, as well as coal.

The state's energy conservation policy is a set of long-term measures aimed at increasing the efficiency of energy resource use in the following ways: - reducing the last (recent) energy consumption to meet the necessary volume of society's demand; - increasing the effective use of energy resources due to the improvement of each stage of the "extraction-transformation-distribution-use" system; -replacement of limited energy sources (natural gas and naphtha) with other cheaper (coal) and renewable energy sources; - providing a bright future technology that increases the energy efficiency of using energy resources while meeting ecological requirements.

Research results: The economic efficiency of energy saving and the acceleration of production is so great compared to the production of energy resources that its implementation simultaneously renews and modernizes the main funds, solves economic and social problems, creates conditions for increasing fuel and energy production and production. , even if it is required in the distant future. In this case, one ton of conventional fuel saved in the consumer is equal to at least 1.32 tons of extracted conventional fuel. According to experts, the benefit from energy saving is three times higher than the expenditure on it. Industrial enterprises cover 70% of heat consumption at the expense of their sources and 30% at the expense of the energy system. Design organizations, when choosing heat supply scheme options, are often based on the minimum capital expenditure and do not take into account the advantages of use, the energy and economic efficiency of the schemes, and the issue of providing heat and electricity to the production is a separate (isolation) scheme. according to, that is, they accept the scheme of supplying electricity from the energy system, heat from local or district boilers. Consideration of mixed production of other energy resources, for example, compressed air, oxygen, etc., is not used at all, except for the scheme of ferrous metallurgical enterprises with blast furnaces. It is known that the cost of compressed air for modern mining enterprises is 45% of all energy costs. In metallurgical enterprises, 51% of total costs are spent on compressed oxygen and process oxygen. Collective use of energy resources, especially secondary energy resources, will save millions of tons of conventional fuel. The optimal structure of energy supply is determined only

on the basis of technical and economic analysis and the development of measures to reduce energy consumption of this production enterprise.

Conclusion: Energy saving is carried out on the basis of the results of conducting energy tests (on the eve of the design and commissioning of the enterprise) and on the basis of the comparison of the actual comparative energy capacity and costs in product production and service with the normative values of the comparative energy capacity. is increased. The level of efficiency in the use of fuel and energy resources used for the production and provision of services of any kind. and the technology being created must correspond to the level of economic development achieved in the country, and it is necessary to meet the requirements of environmental protection.

References

1. Kazuo Matsuda, Yasuki Kansha, Chihiro Fushimo, Atsushi Tsutsumi, Akira Kishimoto. Advanced Energy Saving and its Applications in Industry. Japan - «Springer», 2013. - 94 P
2. Аллаев К.Р. Электроэнергетика Узбекистана и мира, - Т.: Fan va texnologiya, 2009. - 463 с.
3. Аллаев К.Р. Энергетика мира и Узбекистана, — Т.: Moliya, 2007. -388 с.
4. Elektr tarmoqlari va sistemalari: uslubiy qo‘llanma/ O‘zR O O‘MTV; Rasulov A.N., Taslimov A.D., Mamarasulova F.S., Raxmonov I.U.-Toshkent: TDTU, 2014. - 90 b.
5. Xoshimov F.A., Taslimov A.D. Energiya tejamkorligi asoslari. O‘quv qo‘llanma. - T.: Voris, 2014.
6. Karimov X.G., Bobojonov M.Q. Avtomatik boshqarish va rostlash nazariyasi asoslari. O‘quv qo‘llanma. - T.: Intellekt ekspert, 2014.
7. Xoshimov F.A., Taslimov A.D. Energiya tejam korligi asoslari. O‘quv qo‘llanma. - T.: Vneshinvestrom, 2014.

   Karimov X.G., Rasulov A.N., Taslimov A.D. Elektr tarmoqlari va tizimlari. O‘quv qo‘llanma. T. Tafakkur qanoti, 2015.