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ПРОБЛЕМЫ И РЕШЕНИЯ ДЛЯ ПОВЫШЕНИЯ ЭНЕРГОЭФФЕКТИВНОСТИ ЗДАНИЙ В ГОРОДОВ

Аннотация: В данной научной статье рассмотрен вопрос повышения надежности строительной продукции за счет усиления авторского, технического и государственного контроля в области энергосбережения в городах на сегодняшний день, а также краткое изложение того, как энергоэффективное здание создает комфортные условия проживания. в жилой зоне и минимизирует эффективность использования ресурсов.

Ключевые слова: Энергосбережение, теплоизоляция, стратегии пассивного солнечного проектирования, энергосберегающее оборудование

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PROBLEMS AND SOLUTIONS FOR IMPROVING THE ENERGY EFFICIENCY OF BUILDINGS IN CITIES

Abstract: In this scientific article, the issue of increasing the reliability of construction products by strengthening authorship, technical and state control in the field of saving energy sources in cities today, as well as a brief summary of how an energy-efficient building creates comfortable living conditions in a residential area and minimizes the efficiency of resource use information has been provided.

Key words: Energy saving, thermal insulation, passive solar design strategies, energy saving equipment.

You know that the honorable President Shavkat Mirziyoyev has set the task of launching a single platform covering information such as financial indicators of construction enterprises, solvency, state procurement, and qualifications of workers. In addition, it is necessary to pay attention to the energy efficiency of the buildings under construction, and we must say that the buildings must be built in accordance with the requirements of the present time. We must say that the question of increasing the reliability of the construction product by strengthening authorship,

technical and state control in the construction sector is also an urgent problem. Use of world experience, use of new innovative materials and equipment in the field of construction is required.In recent years, the concepts of energy efficiency and energy saving of buildings are often mentioned and introduced at innovative exhibitions, exhibitions of models of buildings with a new, modern, non-traditional appearance, and roundtable discussions. Energy efficiency is innovation aimed at reducing energy consumption, while energy efficiency, on the contrary, means efficient use of energy. As a result of energy efficiency and energy saving based on innovative solutions, reduction of utility expenses of the population, increase of productivity and competitiveness of industrial production, limitation of the amount of harmful gases released into the environment, and ultimately reduction of fuel costs are achieved.It is known that population growth and economic development on Earth lead to an increase in demand for energy resources and an increase in demand for them. The government of the Republic of Uzbekistan, from the first days of our independence, adopted a number of regulatory and legal documents on the implementation of alternative energy sources. To date, the results and effects of the reforms carried out by our respected President Shavkat Mirziyoyev are clearly visible. As an example, we can say that high-rise buildings, cities and eco-cities can be examples of densely populated areas.Regulatory documents include indicators of efficient use of energy during energy generation and consumption, as well as energy consumption in production processes, heating of areas, buildings and structures, maintaining uniform temperature and humidity, air exchange, heat, water, gas and indicators of energy consumption for electricity supply and electric lighting have been established.One of the modern trends in urban housing construction is the design and construction of the planned houses, taking into account their comfort, environmental and energy efficiency. Almost half of the energy consumption in developed countries falls on houses. Therefore, one of the main ways to save resources is to improve the energy efficiency of buildings.Improving the energy efficiency of buildings consists of the following main criteria:

- natural lighting;
- ventilation, heating and cooling;
- thermal insulation.

In our republic, in the hot and warm period of the year, approximately 60-70% of the demand for hot water supply of residential buildings and household service facilities can be met due to the use of solar energy. The construction of solar power plants along with traditional sources of electricity production, at the initial stage, will cost 2 billion per year. cubic meters it will allow us to

save natural gas and produce an additional 6 billion kWh of electricity in a year only at the expense of solar energy. Only the replacement of heating boilers with modern energy-saving boilers can save about 20% of natural gas consumption. This will ensure the energy efficiency of buildings and structures and the use of energy-saving technologies can save 1.1 billion cubic meters of natural gas (946 thousand tons of oil equivalent) per year.In the face of rising energy prices and increasing scarcity of natural resources, one of the ways to reduce energy costs is to improve energy efficiency to optimize existing resources and plan proper investments in new technologies. This helps manage operational costs and better deliver services to customers, while reducing environmental impact and reducing risk. In addition, a documented commitment to sustainable development is a powerful and effective way to demonstrate social responsibility and meet changing customer preferences.It is known that the maximum consumption of available energy resources is observed due to the dense population in urban areas. If we manage to reduce household consumption in urban areas, resources can reach rural residents in remote areas and increase their utilization.In conclusion, it can be said that an energy-saving building creates comfortable living conditions in a residential building and minimizes the efficiency of resource use. As energy prices rise and the energy crisis is an imminent reality, the need to ensure energy-efficient building design becomes even more important. An energy-efficient building balances all aspects of energy use in a building by providing an optimized mix of passive solar-design strategies, energy-efficient equipment, and renewable energy sources. In energy-efficient buildings, active strategies help to provide favorable conditions when passive strategies are insufficient. They need power to operate and increase the building's energy demand. To optimize energy supply and supply, to ensure sustainable development, technically qualified specialists should be hired to design and construct energy-efficient buildings. If an old house is to be renovated, the first step is to prioritize maximum improvements in energy efficiency. Saving energy and using it effectively should become our duty to preserve reserves of important resources such as energy and natural gas for future generations and to pay special attention to environmental protection.

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