МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА
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ADVANTAGES OF PROVIDING BUILDINGS WITH RENEWABLE GREEN ENERGY.

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Annotation: currently, the global population is growing, which naturally leads to a significant increase in energy demand. There are many advantages to providing buildings with green renewable energy. The main content of the article is about the advantages of using efficient and renewable energy sources in buildings.

Keyword: building, structure, construction, energy.

There are a number of advantages to providing buildings with renewable green energy:

1. Environmentally beneficial-renewable energy sources such as solar, wind, biomass generate less carbon emissions than conventional fuels. It plays an important role in the fight against climate change

2. Reducing energy consumption-buildings that generate their own energy through solar panels or wind turbines receive less electricity from the external grid, which reduces electricity costs.

3. Financial savings-although initial investments require, in the long run, green energy systems create independence from the increase in electricity costs and serve as a low-cost energy source.

4. Energy independence-by generating electricity at the local level, the energy security of the territory increases, dependence on external networks decreases.

5. Increasing the value of buildings – buildings with green energy systems will be more in demand and can be sold or rented at a higher price in the market.

6. Health benefits-unlike conventional fuels, renewable energy is clean and reduces air pollution, preventing respiratory diseases.

7. Sustainable future-Green Energy uses unlimited natural resources, which allows sustainable development for future generations.

I will give a detailed explanation of the provision of buildings with renewable green energy. How these systems work, what technologies are used, their economic and environmental aspects:

1. Renewable energy sources Various technologies are used to provide environmentally friendly energy to buildings: Solar power (photovoltaic panels) - solar panels are installed on the roof or walls of a building, from which electricity is generated. This system is especially effective for sunny areas.

Wind power-if a building is located in a windy area, wind turbines can be used to generate electricity.

Geothermal energy-it is possible to heat or cool a building using heat from the underground. This system works efficiently all year round.

Energy generation is possible through biomass and biogas – wood waste, agricultural residues or biogas generators.

2. Advantages of green energy systems Environmental benefits It does not emit harmful gases into the atmosphere.

Reduces air and water pollution.

Helps in the fight against climate change.

Economic benefits Reduces electricity bills.

Protects against changes in electricity prices in the long run.

In some states, subsidies or tax incentives are provided to those who switch to green energy.

Energy independence The dependence on the electrical network is reduced. It acts as an independent source of energy in emergency power outages.

3. Ways to make buildings energy efficient Along with green energy, it is also important to increase the energy efficiency of buildings:

Thermal insulation-energy loss is reduced if the walls, windows and roof of the building are well insulated.

Intelligent energy systems-automatic control of electricity and heat consumption through sensors and intelligent thermostats.

LED lighting and energy – saving technologies-reduce energy consumption through low power consumption technologies.

4. Practical examples and future trends In many large cities around the world, "green buildings" are expanding. For example:

The concept of a "passive house" is to reduce energy consumption to a minimum through natural lighting, insulation and maximum use of solar energy.

“Bosco Verticale” in Bucharest – this building is covered with a green facade, allowing natural cooling and air purification. Tesla Solar Roof-the production of green electricity by covering your home with solar panels.

Conclusion. Renewable energy provision of buildings is not only environmentally but also economically beneficial. These technologies reduce costs in the long run and contribute to environmental preservation.

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