

My favorite invention and what it gave to humanity

Nowadays, our world is developing in all areas. It can be new technologies, energy. In the result, People every day invent something new. There are many world's greatest inventions because they have all helped out humankind in some way, some more than others. I think that the greatest invention of all time is wind energy. Why?

Energy is one of the pressing problems of the global economy. Recently, alternative energy sources have been discussed worldwide and are of global importance. Its main advantage is inexhaustibility and environmental friendliness. The use of alternative energy sources does not change the energy position of the planet compared to the refining of oil and other resources, which lead to large amounts of harmful emissions into the atmosphere. These qualities have led to an increase in the use of renewable energy sources abroad and optimistic forecasts for the next decade. "It is well known that our government approved the development plan for alternative renewable energy in Kazakhstan until 2020. As part of the development of alternative and renewable energy development in Kazakhstan for 2013-2020, we expect that by 2020 we will be able to supply renewable energy up to 1040 MW. It is planned to build 13 wind power plants (793 MW), 14 hydroelectric power stations (170 MW) and 4 solar power plants (77 MW).

Nursultan Nazarbayev noted in the Kazakhstan-2050 Strategy: "As a major player in the hydrocarbon market, we must develop the production of alternative energy sources and actively introduce technologies using solar and wind energy. We have every opportunity for this. By 2050, at least half of all energy consumption, including alternative and renewable sources of energy, should enter the country. This is, above all, a good attempt to reduce the risk of an increasingly complex environmental disaster on our planet. The increasing use of hydrocarbons to meet ever-increasing energy needs has led to air pollution and environmental damage. In the process of global warming, harmful emissions of hydrocarbons are also affecting. Scientists predict that at the end of this century, air temperature will drop to 6.4 degrees, and the oceans will rise by 58 centimeters. The impact of flood waters on the continent already exists. That is why world experts are trying to find an alternative to energy-saving raw materials.

Kazakhstan invented wind energy plants because we could not use all time oil energy. It is good alternative energy for us. Firstly, I want to say about "what is wind, wind energy?". The wind emerges as a result of uneven distribution of pressure on the atmosphere layers and is directed at high pressure to the bottom pressure. As the air pressure is not stable in time and space, the wind speed and direction are constantly changing. Determines the direction of the wind depending on the horizon, and is represented by degrees or rhumb (16 rhombic systems), and velocity - m / s, km / h, longitudinal or honey (on the Bofort stack). As the height rises, the wind power varies depending on the frictional force, and also depends on the gradient change. The wind involves a large area, causing large airflows

(monsoons, passers, etc.), from which local and total atmospheric circulation occurs. Strong winds are frequent in all regions of Kazakhstan (especially in plains), with its maximum winds reaching to winter (40 to 45 m / s) and spring and fall (20-35 m / s). It is very noticeable in the Caspian coast and in the high mountains and valleys. The wind of the World is registered on the territory of Kazakhstan on 23 winds. The essence of the wind. The wind is very important. In ancient times, evolutionists used wind power to travel by sailboats. Wind is an inexhaustible power source. Wind power was used for wind mills.

Wind energy is suitable for use on the ground. Throughout the centuries, water, oil pumps, and power plants have been designed to transform wind energy so that people can benefit from it. Wind energy is very effective, as the experience of many countries and, first of all, the wind cost is zero. Wind energy is the basis of energy and has become the main focus of energy development and has left the category of "alternative".

For example, wind energy is at the forefront of the following indicators:

a) increase of new electric power capacity in the BJ between 2000 and 2014 (116.76 GWh). It should be noted that the solar energy is the third and the natural gas is in the second place.

b) The United States has more than doubled its new capacity by 2015 (9,811 GW) compared to natural gas. In 2015, the net power growth rate of 100% of the SOFTWARE was achieved with renewable energy sources. Leading wind energy (among them 11 GW). In China, which has been producing wind power more than nuclear power for several years, the wind power plant capacity in 2014 was determined to be 23.2 GW, which is the absolute world record. One of the most dynamically developing types of renewable energy sources in the world is wind energy. That's why it has a great future. Our scientists, such as M Mailybaev, Bayaliev, NSBuktikov, have managed to double their quality and cost twice as much as they can compete with the western wind power plant. However, they have not been included in the state-run wind power program. However, there is a high demand for the world of these scientists. However, experts say, "If one of the few pieces of this equipment were to be put into operation, it would be good for both the state and the scientists." Since 2010, NAC Kazatomprom JSC has autonomous energy complexes based on wind and solar energy. "Bolotov's wind turbine" is a unique development of Kazakhstan's famous scientist, doctor of technical sciences, academician Albert Bolotov. The Bolotov Hydropower is a true Kazakhstani know-how and an unprecedented world. Here, two rotating turning circuits are used in a rotating vertical axis rotor turbine. Such a design is able to produce even a low wind velocity without the usual blade stations. The installed capacity of this power plant is very high - up to -43%. Currently, such a 50-station station operates without fail, in remote regions of the country and in Astana. Serial production of 10kW and higher wind generators is planned at JSC "MashZavod" in Ust-Kamenogorsk.

Wind energy is a branch of renewable energy, which is engaged in the development of theoretical foundations, methods and technical means of transforming wind energy into mechanical, thermal or electrical energy. It considers the possibility of rational use of wind energy in national economy. Wind speeds up

to 25mps, winds will stop operating. At present, 74% of environmental experts are encouraged to receive energy through wind turbines. Winds are safe, environmentally safe, away from cities and populated areas. Wind energy has many other environmental and economic benefits from other sources of energy. It can improve its efficiency by improving the wind power plant technology. For sustainable use of wind energy, it is necessary to integrate wind power plants with other sources of energy. Depending on the rarity of winds in the opposite direction, it is advantageous to install turbine rotor-type wind turbines. The total wind power is estimated to be over 5,000 MW. This is a huge source of energy and allows you to save coal and oil, save energy, and especially to avoid environmental pollution. The wind is a device that transforms wind energy into mechanical energy.

Due to wind energy, human solve some global problems, abandoned oil energy, country ecomic change for the better. To sum up, invention, which helped for people and lovely for me, is wind energy. Inspite the fact that this energy will be devoloping.