



Effective Use of Renewable Energy Wind Energy

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Abstract: In this article, the growing need for energy resources and their availability in the world pushes forward the issue of energy saving and the development of alternative renewable energy sources. In recent years, a number of legal and regulatory documents on the development of this industry have been adopted by our president and government. The implementation of these decisions should be the priority of representatives of this field. First of all, it is necessary to study the possibilities of searching for renewable energy sources and using them effectively to generate electricity in our republic.

Keywords: The implementation, energy, regulatory, energy-consuming, special importance.

Introduction

One of the priority directions of the reforms carried out in our economy by our government is the organization of production based on innovations, in which special importance is given to the modernization of the electric power system based on the criterion of energy efficiency. In recent years, our government has adopted and put into practice many regulatory and legal frameworks for the development of this field. In these laws and decisions, the modernization of the electric power system is defined as the priority directions of increasing energy efficiency in production, automation of energy-consuming processes through the use of modern information and communication technologies, and increasing the use of alternative energy sources. Industrial enterprises occupy an important place in energy consumption, and increasing energy efficiency in industry provides great economic benefits. Improving energy efficiency in industrial enterprises is defined in the following legal and normative documents of our country. In April 1997, the Law "Rational Use of Energy" (No. 412-1) was adopted. The law consists of 24 articles and covers all areas related to energy use. The basis of the law is focused on issues of energy efficiency and energy saving organization. On February 22, 2001, the decree of the First President of Uzbekistan "Deepening economic reforms in the energy sector of Uzbekistan" was announced. By the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 164 dated August 7, 2006, the "Rules for energy audit of consumers of fuel and energy resources" were approved. A model program for conducting energy audits and a form of an energy passport of industrial enterprises are provided. The energy passport mainly consists of a set of statistical data on the use of energy resources of an industrial enterprise and is determined by the energy audit organization based on the results of energy audits.



It is known that the rational use of energy through energy-saving measures is several times more effective than increasing the capacity of energy resources. This, in turn, requires research and reconstruction of the existing power supply system of industrial enterprises from the point of view of energy efficiency.

Literature analysis and methodology

It can serve as a basis for the development of decentralized supply of solar energy and solve quality and reliability problems in covering investments in energy infrastructure. Solar energy is very convenient for providing energy to remote and low energy facilities. The development of solar energy is very useful for Uzbekistan, because it preserves natural gas consumption types or allocates additional reserves for export (today 80-85% of domestic energy consumption is met). At the moment, 60 percent of natural gas is delivered to our consumers and enterprises of JSC "Uzbekenergo". As of October 1, 2011, the export price of Uzbek natural gas is 200-230 US dollars per 1,000 m³. In our market, this price is equal to 57.1-45.9 (at the wholesale price - 99.60 soums, for the population - 79.90 soums) US dollars. If Uzbekistan develops solar energy and reduces the gas demand in the domestic market by at least 1% (or 650 mln.m³), our country will save 130-149.5 mln. from gas export every year. earns about USD. This revenue can be used to develop solar energy.[1] For example, by increasing the availability of heliosystems through grants, subsidies and preferential loans, the development of solar energy can be encouraged. If export prices for natural gas increase, Uzbekistan can reduce the volume of gas use in the country by expanding the use of solar energy in order to achieve a realistic goal of its long-term policy in the field of energy. In this regard, the adopted target indicators, for example, reducing the volume of gas production by 0.1-0.2 percent within a certain period, are required to be constantly revised.[2] Wind energy.

Wind is a moving flow of air. The movement of air causes uneven heating of the earth's surface by the sun. Since the Earth's surface has different forms - land and water space, it receives incoming heat in different volumes. During daylight hours, air warms faster over land than over seas and oceans. Warm air expands above the ground and rises into the sky, replaced by a heavier layer of cold air, and this movement creates wind. In the evening, the wind changes direction because the air over land cools faster than over water. At the same time, a strong atmospheric wind sweeps around the entire earth, as a result of which the part near the equator - the part near the North and South Poles - heats up to a certain extent.

Today, wind energy is mainly used to obtain electricity. As long as the sun exists, the wind blows and it is a renewable energy source. Of course, there are many non-conventional alternatives to fuel or electricity. But it is important to choose among them the one that does not harm the environment, is effective in use, and at the same time is financially acceptable. From this point of view, wind energy has several advantages.

The potential of hydropower resources in Uzbekistan is 88.5 billion. kW hours, (including technical - 27.4 billion kWh) of which only 30 percent is currently being used. Full implementation of hydropower potential could meet 10-15 percent of demand in a growing country while maintaining existing hydropower plants. In addition, hydroelectric power plants can produce electricity in a matter of minutes when needed, covering urgent demand.



Conclusion: By 2025, 3 large hydropower plants will be launched: Pskem — 404 MW: Mullalak — 240 MW: Akbulok — 100 MW and other small hydropower plants. In addition, 12 600 mln. kW Hourly small hydroelectric power stations are being built near the reservoirs and will be implemented as part of the development program.

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