UZBEKISTAN'S NEEDS FOR ALTERNATIVE ENERGY SOURCES

Xabibullayev Muhammadabdulloh Axmadullo ugli
Andijan Institute of Agriculture and Agrotechnologies

Ibrohimov Shuhratbek Ravshanjon ugli
Andijan Institute of Agriculture and Agrotechnologies

Abdurahimov Zafarbek Abdusafar ugli
Andijan Institute of Agriculture and Agrotechnologies

ABSTRACT

A solar panel is a device that converts light energy from the sun into electrical energy by connecting solar cells together. A solar panel, also known as a solar cell, consists of solar cells connected in series and parallel. The solar cells are placed in one housing to protect them from external environmental influences.

Key words: energy, energy resources, savings, alternative energy, development of our country, solar panels, advantages of solar panels.

INTRODUCTION

It is no secret that humanity has developed the basis of its way of life. The total energy consumption produced by man depends on the quantitative progress. For example, in the primitive community, the average energy consumed by a person in one day, i.e., the substances that ensure a charged life, energy is considered energy-food. Its amount is 2.4 kWh, and at the current level of living in Western countries, this indicator is more than 10 times more than the structure of the primitive community and is 250 kWh.This indicator includes the metabolic energy that sustains human life, as well as all modern energy: communication, electrical and thermal energy, vehicles. A lot of energy is definitely needed to meet such demands of citizens on the scale of the countries of the world.In the Kingdom of Sweden with a population of around 10 million, an average of 169.9 TWh (terawatt-hours) of electricity is produced per year, while a population of more than 3 million produces 70.01 TWh, i.e. 2.4 times . low electricity generation. For a comparison of electricity per capita, the kingdom of Sweden, which ranks highest in terms of lifestyle, has an average of 13,480 kWh, and 8 times less at 1,645 kWh. So, the higher the level of the country or society, the more electricity consumption. Alternative energy is the use of unlimited natural resources and phenomena, which are renewable energy sources, for the purpose of obtaining

energy. Today, alternative energy sources can include water power, wind power, solar power, hydrogen power, nuclear power, and others. At present, on a global scale, serious attention is being paid to the use of wind and solar energy, which have a great advantage over traditional sources of energy in terms of their limitlessness and the absence of harmful emissions into the atmosphere.

A solar power plant is a set of devices that absorb solar radiation and convert its energy into heat or electricity. If the technical potential of renewable energy sources is fully used, conditions will be created to eliminate carbon dioxide from about 450 million tons of greenhouse gases emitted into the atmosphere. Currently, the energy sources used are mainly coal, oil, natural gas, water and other natural resources, and are produced at great expense. In addition, the reserves of mineral resources that can be mined are limited, and their amount is decreasing year by year. The worst part is that in the process of using natural resources, the environment is polluted and a large amount of non-recyclable waste is created. Therefore, it is the need of the day to study the advantages of using renewable energy, especially the ways to use solar energy effectively, to improve them and to implement convenient optimal options. Solar thermal boilers reduce the use of natural gas alone by up to 60 percent. This equipment is 50-70% cheaper than the widely used energy sources produced and used mainly by the population, private sector and budget organizations.

Wind power plant: Production of environmentally friendly electricity due to the great power of the wind is of great importance nowadays. In our Republic, it is possible to place wind power plants near the cities of Yaipan and Bekobad in Fergana region of Uzbekistan. The experience of Denmark in the production of electricity using wind energy is particularly noteworthy. The main mechanism that converts wind energy into electricity is a wind turbine. At the moment, traditional, but temporarily secondary, methods of obtaining wind energy are being revived. The main disadvantage of the wind power plant is that it cannot be built inside due to the noise coming from the wind turbines.

Hydroelectric Power Stations (HEPS): There is one advantage over any power plant - Hydroelectric power stations are powered by renewable resources. For example, thermal power plants may one day run out of resources. But the water used in hydroelectric plants is naturally collected again every year. Hydraulic equipment sends water at a certain pressure. Hydroelectric power plants supply 63% of the electricity produced in the world. China, Canada and Brazil are leading in this field. Most importantly, it does not harm the environment and water at all. Hydroelectric power plants change the environment (releft) at the location of faults and cause groundwater to rise.

Summary

To sum up, almost all of the electricity and heat energy produced today is accounted for by the burning of organic fuels, i.e. burning of gas, oil, coal, and the like. But these underground resources are non-renewable and limited in quantity. Humanity is increasing year by year. Therefore, one of the big problems facing humanity is to find new sources of energy. Scientists of the world are working on these works and are achieving many amazing results. Currently, electricity in Uzbekistan is obtained mainly from non-renewable energy sources, which leads to the high cost of electricity and the depletion of our natural reserves. Therefore, I need to use more of the new energy sources. Besides, the natural reserve of this land will remain for the future generations, and it will lead to a decrease in the cost of electricity.

REFERENCES:

1. Majidov Taxir Shadmonovich “Noana’naviy va qayta tiklanuvchi energiya manbalari ” Toshkent 2014 y
2. Egamova I. Sh “ Noana’viy energiya manbalari” Toshkent: O‘qituvchi 2018y
3. Energiya tejamkolik asoslari. A.Radjabov , M.Ibragimov, A.Berdishev, O‘quv qo‘llanma Toshkent 2009 y
4. O‘zbekiston Respublikasi 2020-2030 yillar uchun elektr energiyasi bilan ta’minlash konsepsiyasi.
5. https://uz.m.wikipedia.org/wiki/Shamol_energetikasi