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APPLICATION OF ALTERNATIVE ENERGY SOURCES

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Abstract:
This article will talk about alternative energy sources and their types. It is mentioned that the currently most sophisticated alternative energy types available are solar, wind, bioenergy and geothermal energy types. It is also stated that they have advantages over their convenience, other traditional types. It is said that in the future, these types of energy will be effectively used as the main sources of energy in all areas of the human lifestyle.

Keywords: solar, generator, energy, alternative, bioenergetics, wind, product, photoelement.

INTRODUCTION

When teaching the subject of the basics of Electrical Engineering and electronics, it is advisable to familiarize cadets with the latest current topics in the field of physics. The use of alternative energy sources historically goes back to very long periods. From time immemorial, solar and wind energy to some extent has been used by humanity in its way of living. For example, windmills were widely used in jobs such as grinding grain, drying fruit and pulses in the sun.

With the help of modern tools and devices that have now been improved, these works are carried out. New areas and areas of alternative energy sources are developing. Examples of alternative energy source types include wind power, solar photo energetics, bioenergetics, ocean and sea wave energy. Currently, the most sophisticated alternative energy types available are solar, wind, bioenergy, and geothermal energy types. Their convenience has advantages over other traditional types of energy.

Solar photo energetics is understood to be the domain in which solar light radiation energy is converted into electrical or thermal energy based on the internal photo

effect law. In this case, photocopiers or photocopiers of different sizes and mechanisms, photoelements, are formed from materials that absorb sunlight well (mainly silicon is a raw material).

Solar panels

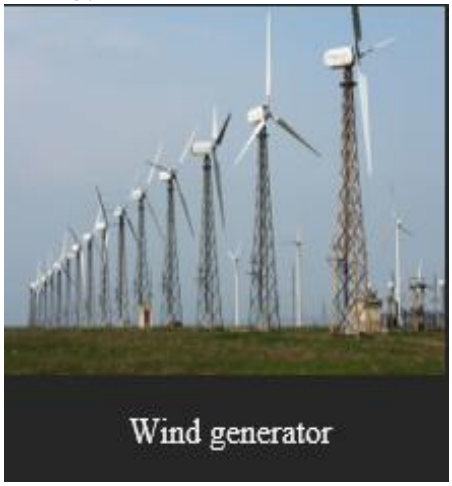
Solar optical radiation energy has been found to drop 1,370 joules of energy to a surface of 1 m2 on average in the Earth's sphere. It can be seen from this that in the future it is expected that further improvement in the use of solar energy in the human way of life, the creation of new modern structures and the widespread introduction of its use as an energy source in all areas will develop. When converting solar optical radiation energy into electrical energy, solar photoelements or solar panels made up of them (solar cells) and solar photoelectric systems based on them are used.

The basis of solar photovoltaics (solar panels) is the solar battery, which charges the battery of accumulators at the expense of the energy of photons of light coming from the sun. Solar cells (panels) are currently being made from 16-17% monocrystalline or polycrystalline silicon-based solar elements. Scientific research, research is being carried out all over the world, tirelessly to further improve the efficiency of solar elements produced in the future, in particular silicon-based solar elements.

The use of wind energy in the human way of life may exist as early as ancient times. For example, windmills, sailing ships, wind-assisted control of balloons, etc. Currently, modern wind power units have been created, which, according to their capacity, are allocated to mini and large wind power units. Large wind power units (the capacity of wind generators in wind power unit's parks is around 1-5 MW of each generator) are mainly installed in wind parks.

Also, in the operation of large wind generators, it is considered sufficient that the wind speed is on average around 25-35 M/s. Such geographical areas are more common on the globe, mainly in places close to the sea and oceans. In addition to the mountains, and in the gorges of the mountain there are also areas with constant gusts of wind. It is considered much more efficient, affordable and convenient to

build large "wind parks" in such geographical areas and use them as a source of energy.


Wind generator

At the moment, a huge number of types of new wind generators have been created, from which it is advisable to use them selectively, suitable for different geographical areas. The disadvantage of Mini wind generators is that they are not an opportunity to provide large power consumers with an energy source. Often, the use of mini wind generators as a source of energy in a mountain, deserts, disconnected from the energy supply is considered to be offensive.

Because in these areas it will be possible to easily implement mini wind generators if there is a need to move from one place to another, that is, it is much more convenient in terms of the possibility of moving energy devices (like solar photovoltaics, in regions disconnected from energy supply). In any case, it is required to constantly monitor their technical condition. Especially large-capacity wind generators are considered much more dangerous.

Another of the types of alternative energy sources is "bioenergetics". The use of this type of energy is now mainly related to agriculture and animal husbandry. Bioenergetics it is understood the field of natural biogas formation from them based on the processing of products of natural raw materials in special devices (fermentation, rotting).

Currently, in developed countries, plant species that emit a huge amount of natural gas from themselves in the formation of this type of energy are grown in special fields, from which natural biogas and electricity are generated in modern biogas devices. Modern biogas devices are now being used to supply gas and electricity to homes. Natural biogas can also be produced on the basis of livestock local fertilizers.

CONCLUSION

It is planned to establish the use of natural biogas in some livestock farms of the Republic. There is an opportunity to create biogas formation even in a rural home

environment. The bulk of biogas is methane gas. Hence, it is also cheap and convenient to generate biogas and use it as heating and electricity, as long as it is a technically safe alternative type of energy. As long as the use of alternative types of energy sources in general is considered environmentally friendly, energy efficient and safe as well.

These types of energy are now often used as an additional source of energy. In the future, tireless scientific research is being carried out in the field of effective use of these types of energy as the main energy sources in all areas of the human lifestyle, new technical developments and constructions are being developed.

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