

IMPACT OF THE SOLAR POWER PLANT ON THE ENVIRONMENT, ATMOSPHERE AND ECOLOGY

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Анотація

Робота присвячена дослідженню впливу сонячної електростанції на навколишнє середовище, атмосферу, та екологію. Було розглянуто як саме впливають електростанції на нинішній стан екології, та чи варто їх використовувати взагалі. Внаслідок забруднень атмосфери нашої планети, а зокрема забруднень від тепло-, гідро-, та атомних електростанцій, були розглянуті альтернативні варіанти здобутку електроенергії.

Ключові слова: екологія, довкілля, метод, ідея, інновація, енергія.

Abstract

The work is devoted to the study of the impact of the solar power plant on the environment, atmosphere, and ecology. It was considered how exactly power plants affect the current state of the environment, and whether they should be used at all. As a result of pollution of the atmosphere of our planet, and in particular pollution from thermal power plants, alternative options for the achievement of electricity were considered.

Key words: ecology, environment, method, idea, innovation, energy.

Introduction

Over the past 20 years, the issue of ecology has become acute all over the world, including in our country. The ecological state of our planet can be called catastrophic. Therefore, scientists are looking for various options for improving the environmental condition. Considering the issue of negative consequences of modern methods of obtaining electricity, solar batteries are one of the ways to improve the state of ecology. It is solar power plants that do not pollute the soil and atmosphere, unlike nuclear or hydropower plants. For Ukraine, this issue is quite relevant.

Research Results

It is worth listing the main advantages of solar power plants:

- In the process of mounting ground structures for placing solar panels, provided that appropriate construction technologies are followed, damage to the soil is minimal. In the future, after the expiration of the period of use of solar batteries, the land plot can be 100% reclaimed and used for economic purposes.
- The operation of the solar power plant does not affect the atmosphere in any way. This is because the energy is generated through physical processes without harmful emissions.
- All types of solar batteries do not require special maintenance. One of the most energy-intensive processes is cleaning solar panels from dust and dirt.
- The long service life of solar batteries makes it possible to build longer-term plans for the modernization of energy networks.
- The technologies of recent years have made it possible to minimize the use of environmentally hazardous substances in silicon wafers.

The effectiveness of solar panels has already been verified by real practical experience of operation. That is why the trend of the last decade has been the rejection of the construction of nuclear and thermal power plants and the active development of projects in the field of solar energy.

Solar panels for the home are made from absolutely clean and safe materials that do not harm the general state of the environment. In addition, when discovering new ways of producing solar energy, they must fully comply with established environmental standards. As proof, high-quality solar panels meet the strict standards of European requirements, which is guaranteed by CE certificates of European conformity. Different types of

modules correspond to certain certificates. The CEI EN 61215 certificate is provided for crystalline silicon panels.

As a confirmation of the absence of damage from solar power plants, I wanted to cite, as an argument, the results of a study by American experts conducted in 2018. Specialists of the US Association in the field of energy have published an article regarding the results of the impact of solar energy on humans and the natural environment.

Conclusion

Any other way of generating energy is definitely more harmful compared to solar heat and power plants. The only thing that experts have pointed out is the problem of disposal of such equipment. Therefore, it is safe to say that solar power plants are safe for home and industrial use. It is necessary to understand that the transition to solar batteries is the future, which is actively used in countries around the world. Myths about solar energy existed for a long time due to the lack of sufficient research in this field. One of the most common is the adverse impact on the environment. If you decide to install solar panels, you can do it safely. They do not represent a threat or harm.

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