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Harmful Environmental Effects of Electric Power

One of the major ecological problems of negative influence of generating and transporting electric power on the environment and human's health in Ukraine is presented for consideration.

The basic sources of contaminations and negative influence are examined and they are:

1. Thermal power-stations produce the third part of all harmful pollutions (from stationary sources) of atmospheric air. The level of environment contamination depends not only on the kind and quality of fuel but also on the scales of its use, the perfection of equipment, technological processes and systems of cleaning wastes. Raw material for thermal power stations is hard fuel, fuel oil and gas the supplier of which is a mining sector of industry.
2. The wastes of nuclear power stations are waste products of radiations, chemical and thermal substances.
3. The enterprises dealing with transporting and distributing electric power also negatively affect environment and health of people.
4. Hydroelectric power stations not being the sources of contamination of environment nevertheless do perceptible harm to it. While building Kakhovska hydroelectric power station a storage pool was specially constructed, which resulted in changes in the flora and fauna of the region.

Harmful factors might not show themselves soon, because it turns out to be a long and uncontrolled process.

Developing new technologies it is necessary to take into account the factors of safety and ecological "purity" of inventions. To improve the ecological situation, related to energetics in Ukraine following measures could be recommended:

- Stimulation of resource saving, power efficiency, development and introduction of ecologically safe alternative technologies;
- Increasing efficiency of production, transporting and thrifty use of fuel and energy resources;
- Creating efficient objects of ecologically clean energy.

There are a lot of problems specialists in electrical engineering should investigate. The power supply department of Kharkiv National Technical University of Agriculture is now working on the problem of a rational usage of electric power. We can attain our goals due to proper usage of materials for electric power transmission equipment, advancing technologies of its transporting to decrease its losses on the way from power station to the users. In fact, the work on improving ecological cleanness of getting and transporting electric power is just beginning in Ukraine.