

RESOURCE-SAVING TECHNOLOGIES

Stanislav Baraban

Tavria State Agrotechnology University, Melitopol, Ukraine

All that is routinely used by mankind, from electric lighting to flat-screen TV sets and iPhone - depends on our ability to pump out of the Earth's resources. Modern life of humanity is depend on the expense of natural resources.

Most scientists believe that present levels of consumption and amounts of proved resources are enough to mankind that to recoverable oil reserves for the nearest 50-80 years and the deposits of gas - for 60-80 years. The world rushes into «the crisis of the depletion of natural resources». At the moment the new technologies have they are used already invented and used for the extraction of power!

Wind generators, solar batteries, microhydroelectric stations became the source of the alternative energy! Ukraine started to move to a new level of energy supply. So about 4 million hr. was invested in the projects of wind power plants in berdyansk and village botiyevo in 2013. Wind turbine can work autonomously without network.

They can be small and medium-size with power from 0.5 to 30kW. Wind generator can work both individually and as a part of the so-called «hybrid installation», in combination with the diesel-generator, solar panels, etc. The most effective installation is solar batteries. In the southern regions of Ukraine they are installing now. Solar photovoltaics can be of the following basic types: self-contained - in case if there is no connection to the network. Solar modules generate the electricity for the purposes of the light, the power of television, radio, pump, refrigerator or manual tools. Usually, for the storage of energy the rechargeable batteries are used. One of the most effective directions for the development of alternative energy is the use of energy of small watercourses pumps which are operated with the help of small hydroelectric power plants (micro-hydro).

Nowadays, the different types on instalations are maintained in the world:

- 1)The world's largest solar power station in Thailand;
- 2)The largest solar farm in Australia;
- 3)The first solar plant in the Sahara;
- 4)Hydro power station the "Three gorges" in China.

Gradually the "new" power plants should replace the "old" ones that to improve economic environmental, autput sides of industrial power. The ultimate goal is the creation of a hybrid system of managment with other mechanisms of energy production and consumption.

The development of the energy sector in the world and the state policy in this field, includes the energy strategy of Europe for the period up to 2030. Drafted in the spirit of the industrial energy and is aimed at building up the production of the energy facilities.

Економіка для екології: матеріали ХІХ Міжнародної наукової конференції, м. Суми, 30 квітня – 3 травня 2013 р. / редкол.: Д. О. Смоленніков, М. С. Шкурат. – Суми : Сумський державний університет, 2013. – С. 20-21.