Development of modular energy sources

Block power plants and boiler houses, mounted on the basis of household trailers or containers, have long been known, the advantages of which in comparison with conventional power plants and CHPs are ease of deployment and operation. Such power plants are used as the main or backup sources of electricity in remote places and especially in places with difficult climatic conditions to fully or partially cover the electrical loads of certain industrial and social facilities. Power plants in block power plants are internal combustion engines or gas turbines. The disadvantage of such power plants is the need to burn fossil fuels and the associated low efficiency.

Block diesel power plant.

A further step in improving the energy efficiency of electricity generation was the combination in one unit of the power plant and the boiler room into a single cogeneration unit in which the power plant is supplemented by a recovery boiler. The efficiency of such an installation, due to the recovery boiler, reaches 90%, but the disadvantage is the need to burn fossil fuels - oil or gas.

Modular cogeneration unit.

Further development of mobile modular power plants went in the direction of using alternative energy sources. An example of such an installation is the MASWES^{TM} mobile autonomous solar-wind power plant, which is designed to provide electricity to small farms and can be used both in the mode of connection to the central grid and completely autonomously from it.

Mobile autonomous solar-wind power plant (MASWES).

MASWES^{TM} differs from similar power plants by the increased capacity and operational reliability. Reliability of power supply is provided by two independent power generation channels, each of which includes a wind generator, solar panels, batteries with a charge controller, an inverter and a control and diagnostic system. If necessary, a charging station for electric vehicles can be connected to each of the channels. More information about MASWES^{TM} can be found here.