

NONCONVENTIONAL POWER SOURCES – THE BASIS OF ENERGY SECURITY OF THE COUNTRY

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Energy is the main component of human life. In Ukraine the continuous growth of the industry which can't directly function without power branch is observed. There is an opinion that at a present situation of stocks of coal oil – for 35-40 years will suffice approximately for 270 years, gas - for 50 years. Why the tendency of development of alternative types of energy is observed at such figures? First, considerable financial expenses on investigation of new fields (for example, the organizations of deep drilling in sea conditions both other difficult high and labor-consuming technologies). The environmental problems connected with production of energy resources.

The most important resource of energy security are thermal power sources. In the territory of Ukraine existence of considerable resources of the thermal energy which general potential is estimated at 438 billion kW is observed. hour/year that equals to fuel stocks of 50 million tons of conditional fuel, predetermines expediency of their development and use for heating, water supply and air conditioning. Results of studying of thermal resources of the Crimea executed on the basis of the analysis of geological and thermal data, testify to existence of some prospects of development of thermal power on the peninsula, especially in the development plan of production technologies of hot water. Use of energy of thermal sources isn't limited only to the technologies intended for production of hot water or for direct giving of thermal loading in systems of a heat supply, can assume also introduction of technologies c by the low investment cost providing a construction of thermal accumulators with thermal water or air pumps. Economic feasibility of the project depends on a depth of thermal resources. Results of research testify to existence of economic prospects of operation of tourmaline resources, in particular, if the thermal water horizons lie at a small depth as the main expenses are connected with drilling of wells. Optimum depth of drilling are 1000-1500 meters.

Energy production from thermal sources allows to cover less than 1% from the general demand for energy in the Crimea (including the electric power, thermal energy and fuel). Operation of those production sites where wells are already comprehensively studied and tested that allows to minimize risk of execution of losses when drilling wells with low efficiency would become effective strategy of development of thermal resources in the Crimea. The incentive for use of new technologies in agricultural, industrial, inhabited sectors and in a resort and recreational complex is thus created.