

# **ANALYSIS OF THE SITUATION IN MUNICIPAL HEAT ENGINEERING OF UKRAINE**

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Ukraine is an energy-scarce country. The total indicator of fuel import dependence of the country is more than 50%. This poses a risk to energy security and requires the active involvement of alternative energy sources in the energy and heat supply systems.

At present, the system of centralized heating of the population is 52%. The growth of centralized heat supply in European countries with cold climates confirms the development vector for Ukraine.

However, the policy of the Minregion focused on full decentralization has led to the loss of control and management of the industry. Local authorities, in spite of the interests of the state, are widely implementing the decentralization of heat supply.

Decentralized heat supply eliminates the ability to control the emission of local sources to the environment and tightly binds consumers to the consumption of natural gas or electricity as energy. The decentralization of heat supply does not allow the use of renewable and alternative fuels, in particular solid waste, for district heating. It should be noted that "individual" heat supply is only conditional, because the reconstruction of gas and electricity networks requires significant financial investments.

The current state of the energy system does not allow to increase the generation of energy. More than 80% of coal-fired power units worked more than 200-250 thousand hours and should be closed for reconstruction. Distribution systems have worked out 2 to 3 normative terms of operation. In 2014, the project lifetime of 8 of the 15 nuclear power units has expired, for 2 ones it expires in 2019. Own natural gas extraction increased by 1% over the year. The share of alternative sources such as: biomass, solar, wind power plants, along with container block stations in 2018 amounted to 2.6%.

The coefficient of aging of power equipment and electric networks does not provide grounds for the prospects for a significant increase in individual heat supply with the use of electric heating. The import of 30% of natural gas does not give grounds for a significant increase in individual heat supply using natural gas.

If a massive transition of consumers to individual heat supply systems with the use of gas and electricity is commenced, neither the Ukrainian gas system nor electric power and networks are ready for this.