

PROBLEMS AND CONDITIONS OF THE CONSTRUCTION OF THE AGRICULTURAL SMALL POWER BIOGAS PLANT

The rational use of energy from renewable sources, i.e. energy from rivers, wind, as well as solar energy, geothermal energy or biomass, is an essential component of sustainable development producing measurable ecologic and energetic effects. The increase in contribution of renewable sources of energy to the energy balance of the world affects the use and saving of power resources, improves the environment condition, reducing both the pollution to the atmosphere and waters and the quantity of the produced wastes (Gąsiorowska et al., 2009). Therefore, the support for the development of the resources is becoming a more and more important challenge for almost all countries worldwide.

The construction of agricultural biogas plants in Poland, especially in agricultural regions, creates good opportunities to activate the local community and can contribute to a larger energetic safety of the region, improving energy supply to the districts with poor energetic infrastructure in particular. Rural areas (with agricultural production) as well as residential areas and transport may become the greatest receivers of renewable energy. For unemployment-stricken regions in particular, the renewable sources of energy make possibilities of creating new workplaces. On the other hand, agricultural areas unfit for cultivating edible plants owing to strong soil pollution may be used for plants for biofuel production. There is an almost common agreement that the development of energy industry based on renewable sources may solve a great number of ecological problems created by energy industry as regards the whole country as well.

It is suggested that the biogas plant should be located according to the directions of the local land management plan, considering the specific functioning and influence of the plant on the surroundings and their development, including local economy. While planning the location of the biogas plant, the negative environmental effects should be taken into account, which obliges a future investor to prepare a required environmental report.

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