



## **Biogas - the calculable energy**

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EU actions against climate change are rising energy prices, both have emphasized the use of renewable energy, increase investments and energy efficiency. A number of objectives formulated in the EC decree no. 29/2009 by 2020. This document is based on the share of renewable energies in energy consumption should be increased to 20% (EC, 2009). The EU average is 20% but the share of renewables vary from one member state to another. In Hungary in 2020, 14.65% renewable energy share is planned to be achieved. According to the latest Eurostat data, the share of renewable energy in energy consumption of the EU average was 14.1%, while in Hungary, this share was 9.6% in 2012. (EUROSTAT, 2014). The use of renewable energy plant level is influenced by several factors. The most important of these is the cost savings and efficiency gains. Hungarian investments in renewable energy production usually have high associated costs and the payback period is substantially more than five years, depending on the support rate. For example, the payback period is also influenced by the green electricity generated feed prices, which is one of the lowest in Hungary compared the Member States of the European Union. Consequently, it is important to increase the production of green energy. Nowadays, predictable biogas energy is an outstanding type of decentralized energy production. It follows directly that agricultural by-products can be used to produce energy and they also create jobs by the construction of a biogas plant. It is important to dispose of and destroy hazardous and noxious substances in energy production. It follows from this that the construction of biogas plants have a positive impact, in addition to green energy which is prepared to reduce the load on the environment. The production of biogas and green electricity is one of the most environment friendly forms of energy production. Biogas production also has other important ecological effects, such as the substitution of fertilizers, reducing its use in agriculture, which protects groundwater and surface water conditions and reduces the amount of greenhouse gases in the atmosphere. In the future more emphasis should be given to increase the effectiveness of existing technologies and other types of innovation could be expanded in energy production. It can be concluded that green energy investments can be rewarding if accurate planning is carried out before the investment.