

Amendment of Feed-In Law Triggers Biogas Boom in Germany

Allgemeines

Posted by: gert kreutzer

Posted on : 17.04.09



800 New biogas plants to be constructed in 2009, BORDA did pioneer work in the late 70s

By Tim Cordsen, BORDA Bremen

Due to the amendment of the “Renewable Energy Sources Law” (or feed-in law) in Germany, which has become effective in January 2009, the construction of small biogas plants became very interesting especially for small and medium sized farmers. There are already 4000 agricultural biogas plants; 650 of them are situated in the federal state of Lower-Saxony in Germany, which is seen as the pioneer state for this technology. The industry expects to build up to 800 new biogas plants in 2009.

There are several reasons for this boom. At the moment we are witnessing a so called “double effect”:

The prices of the most important inputs corn and crops have doubled in 2007 due to a worldwide economic boom. So the farmers sold their commodities on the market instead of fermenting them in a biogas plant. Since early 2007 no agricultural biogas plant was constructed because it wasn't profitable. So the German parliament decided to increase the guaranteed fees for the feeding in of electricity produced by biogas. Meanwhile in 2008 the prices for agricultural commodities have dropped drastically due to the worldwide economic crisis. Currently several farmers need to create a second source of income, because many of them can't live on the market-prices for agricultural commodities. **The low market prices and the increased guaranteed fees are a double incentive for the farmers to construct biogas plants.**

Besides the use of renewable agricultural commodities like corn and crops, farmers can use already existing slurry and dung from animal husbandry, organic waste or grass as an additional input for the biogas plant. **Another reason for the boom is the long operating time for the biogas domes that is denoted with 20 to 30 years.** So the farmer can calculate loans for the construction and cash flow he

receives by the feeding in on a long term basis. The low base rate due to the economic crisis might be an additional incentive for small and medium sized farmers to construct a biogas plant.

In most cases biogas is used to produce electricity and heat. The production of these two outputs is targeted by the feed-in law. [The purpose of the law is to increase the amount of electricity that is produced from renewable sources to up to 30% by 2020, thus supporting Germany in achieving its European emission reduction goals.](#) At the moment roughly 14% of the German electricity is produced by renewable sources, 1.5% from biogas. This amount will soon rise due to the boom. The law guarantees a minimum tariff for each kWh that is produced by the farmers and fed into the power grid. The price depends on the power generation capacity of the biogas plant, e.g. very small plants producing up to 150 kW will receive a minimum of 11.5 Cent per kWh. Larger biogas plants with a capacity of 5 MW will receive 8.9 Cent per kWh. In addition there is a bonus of four cent per kWh for small units, encouraging the use of slurry for the biogas production. To receive this bonus the slurry must represent 30% or more of the organic input. Especially farmers that plan to construct a small biogas plants are supported by the amendment of the feed-in law.

The booming of the German biogas sector is very interesting for BORDA being one of the driving forces behind the revival and dissemination of this technology in the late 70s and 80s through research and development, capacity building and networking. [Besides hosting several biogas workshops in Germany and abroad, BORDA published the "BiogasForum", a quarterly newsletter for politicians, planners and practitioners. For 20 years the magazine had more than 1000 readers in 30 different countries.](#)

Today anaerobic technology and biogas utilization play still an important role in BORDA's working portfolio. In comparison to the agricultural biogas plants and the larger biogas power plants that are supported in Germany, the biogas domes BORDA constructs in their development projects are much smaller. These units are ranging from 20m³ up to 200m³ digester volume. They are often a part of DEWATS sites, which are designed to treat wastewater. The biogas settlements or agro industry collect in these units is directly used for cooking purposes.

[So the biogas technology that was upgraded and mainstreamed in the 70s and 80s with BORDA's active involvement focussing on developing countries is finally becoming relevant for the generation of electricity and heat in the developed countries.](#)

The acknowledged advantages of decentralization of energy supply and waste-treatment are realized and financially supported by the German government. The amendment of the "Renewable Energy Sources Law" will contribute to boosting sustainable development in the German electricity and heat sector. The increase in production of electricity by biogas will help Germany to achieve the 2020 targets for greenhouse gas reduction. Unlike in Sweden the phasing out of nuclear energy is still a part of German policy. Together with other efforts in the field of energy efficiency and renewable energy sources, biogas has become an integral part of German energy policy striving for a more sustainable energy supply.