

DKK 37 million from PSO for bioenergy



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Electric cars and fuel cells became the major top scorers at the distribution of PSO funds for funds for 2009, but bioenergy is also nicely represented with a total aid amount of DKK 37 million.

Almost half of the DKK 130 million that the ForskVE programme has at its disposal in 2009 will go to electric cars and fuel cells. A large electric car project on Bornholm will get as much as DKK 32 million and a project for development of fuel cells will get DKK 25 million in aid.

However, bioenergy is also nicely represented in the three research programmes administered by Energinet.dk. From the ForskEL programme, almost DKK 29 million will be going to bioenergy, from the ForskVE programme, it is DKK 5 million from a total limitation of DKK 50 million, and from ForskNG, the entire grant of DKK 3 million will go to a biogas project.

The largest grants have gone to thermal gasification, which is mentioned in the previous article, but aid has also been granted for projects about handling and burning of biomass, and apart from this, four different projects about biogas have received aid.

For instance, a bit more than DKK five million has been granted for development of a technology for thermal pre-treatment, which makes the biomass more homogeneous, gives it a higher energy density, makes it easier to reduce and more storage stable.

The biogas plant in Foulum, where the researchers are for example going to start investigating how to optimise the gas output from livestock manure.

Within combustion of biomass and waste, two projects have been given a total of DKK 2.3 million in aid. One of the projects can be used to create two-dimensional images of the flue gas in a boiler system, while the other project is to develop a method to assess how much biomass there is in combustible waste.

Biogas projects

Biogas can receive aid from the ForskEL programme as well as the ForskNG programme. Under the first mentioned programme, there has to be an element of environmentally friendly electricity production, while the projects under ForskNG are more about transport and refinement of biogas.

From the ForskEL programme, Energinet.dk has granted a total of DKK 8.1 million in support for three different biogas projects. They are about pre-treatment of the biomass and development of methods for monitoring of the biological process. Furthermore, the research centre Forskningscenter Foulum will get DKK 3 million in aid from the rather new ForskNG programme. The money is to be used for a project that is supposed to optimise the biogas output from livestock manure and investigate whether pre-treatment of the liquid manure can help increase the gas production. TS

DKK 8 million from EUDP for biogas

Nordic Bioenergy and Novozymes are going to do research on how to optimise the transport of liquid manure from the farmers to the large centralised biogas plants.

With the latest energy settlement, the ground has been prepared for biogas production to be tripled from the current 4 PJ to 12 PJ per year. A minor part will probably be produced at the large pig farms, but the large majority of the expansion will most likely be based on joint biogas plants receiving liquid manure from the surrounding farms.

New biogas plants cannot expect to be supplied with industrial waste, which means that they have to be prepared for their economy to be based solely on degasification of the more meagre livestock manure. This places significant demands on handling and transport of liquid manure, and this has encouraged the board of the EUDP programme to grant DKK 8 million for development of a technology that can be used to pre-treat liquid manure in order to minimise the transport costs.

The grant has been awarded to Nordic BioEnergy - a newly founded company that is basing its research on the technology developed by Bioscan from 1985 until the company's bankruptcy in February 2007. In co-operation with Novozymes, Nordic BioEnergy is going to develop a plant concept where the manure is separated at the individual farmers. After that, the fibre fraction is to be liquefied using enzymes in order to make it possible to transport it in tank trucks to the nearest biogas plant, while the already liquid fraction remains at the farmer.

– The aim is to concentrate the livestock manure in the least expensive and most effective way. We will not be changing anything about the biogas plant - it is the logistics that need improvement, explains Lars Rohold, who is the manager of Nordic BioEnergy.

The EUDP project is expected to be completed in three years. TS