Newsletter IEA Bioenergy Task 37
July 2011/2

IEA Biofuel Roadmap

End of April 2011 the IEA Head Quarter in Paris launched a new Technology Roadmap on Biofuels for Transport. It has been written by Anselm Eisentrauth and Adam Brown, the former Technical Coordinator of IEA Bioenergy, with strong support from members of IEA Bioenergy. The authors concluded that Biofuels – liquid and gaseous fuels derived from organic matter – can play an important role in reducing CO2 emissions in the transport sector. By 2050, biofuels could provide 27% of total transport fuel and contribute in particular to the replacement of diesel, kerosene and jet fuel. The projected use of biofuels could avoid around 2.1 gigatonnes of CO2 emissions per year when produced sustainably. Meeting the biofuel demand in this roadmap would require around 65 EJ of biofuel feedstock, occupying around 100 million hectares in 2050. Trade will become increasingly important to supply biomass to areas with high production and/or consumption While total biofuel production costs from 2010 to 2050 in this roadmap range up to USD 13 trillion, the marginal savings or additional costs compared to use of gasoline/diesel are in the range of only +/-1% of total costs for all transport fuels.

More

European Expert Group on Future Transport Fuel

The EU objective is an overall reduction of CO2 emissions of 80-95% by the year 2050, with respect to the 1990 level. Decarbonisation of transport and the substitution of oil as transport fuel therefore have both the same time horizon of 2050. An expert group of a different background within the fuel and transport sector looked at solutions how the decarbonisation of transport could be accomplished in the time horizons 2020 and 2050. Alternative fuel options discussed in the report are: electricity and hydrogen, liquid biofuels, methane (natural gas and biomethane) and Synthetic fuels as a technology bridge from fossil to biomass based fuels.

They concluded that biomethane should preferentially be fed into the general gas grid. Methane powered vehicles should then be fed from a single grid. Additional refuelling infrastructure has to be built up to ensure widespread supply. Liquefied methane gas (LNG) could be a possible option for long distance or hevy duty transport. Harmonised standards for biomethane injection into the gas grid and the build-up of an EU wide refuelling infrastructure are of the highest priority.

More