



8 June 2007

First Danish Hydrogen Energy Plant is Operational

Denmark's first full-scale hydrogen-energy plant and testing facility, the Lolland Hydrogen Community opened May 2007. It is also the EU's first full-scale Hydrogen Community Demonstration facility for residential Fuel Cell Combined Heat and Power (CHP).

Located in the city of Nakskov on the island of Lolland, where wind power is abundant, the hydrogen energy plant is a joint partnership between the Municipality of Lolland, IRD Fuel Cells and Baltic Sea Solutions with funding from the Danish Energy Authority. The island is producing 50% more energy from renewable energy sources that it consumes and the hydrogen project is seeking to locally store excess wind power in the form of hydrogen for use in residential and industrial facilities.

Hydrogen is produced by using excess wind power to split water into oxygen and hydrogen through electrolysis. The oxygen is used in the municipal water treatment plant nearby to speed up the biological process. The hydrogen is stored in low-pressure storage tanks at 6 bars and fuels two PEM Fuel Cell Micro Combined Heat and Power (CHP) stations of 2 kilowatts (kW) and 6.5 kW, respectively.

Within the next couple of years the project will install residential micro CHP units in 35 homes in the village of Vestenskov making it the first hydrogen-powered community in Europe.

More info: www.h2-lolland.dk