

“Transport sector could undo all plans for CO2 reduction”

Only a considerable reduction of the CO₂ emissions from the transport sector would make it possible to reach the goals set by the Kyoto protocol, according to DWV, the German Hydrogen Association.

In their press release on the occasion of the publication of the Energy Report by the German Ministry of Economics and Technology, they state that reduction of fuel demand and less and better directed traffic is only one step towards this goal. Above all, the reduction requires new fuels that are produced on the basis of renewable energies and contain less carbon than the present ones, hydrogen fuelled cars being the optimum solution. As the first hydrogen cars are expected on the market around 2010, DWV pleads for the creation of boundary conditions to build a proper infrastructure.

On 27 November the German government released an energy report in which can be read that between 1990 and 1999 in Germany CO₂ emissions dropped in all categories (trade and services 36 %, industry 32 %, energy conversion 19 %, private households 4 %), however those from traffic and transport rose by 15 %. Since all experts predict a further increase of the demand for mobility the transport sector could undo all plans for the reduction of the CO₂ emissions.

Source: press release Dec. 5, 2001 of the German Hydrogen Association, <http://www.dwv-info.de/pm/pe0105.htm>

NEWS FROM THE IEA World Energy Outlook 2001

The recent surge in energy prices is drawing attention once again to the availability and security of energy resources and the prospects for both supply and prices. World Energy Outlook: 2001 Insights - takes a detailed look at all these issues. It analyses the main factors driving energy production and distribution, including the cost of developing resources and bringing them to market, energy pricing and the impact of government policies.

The study's central finding is that reserves of oil, gas, coal and uranium are more than adequate to meet projected demand growth at least until 2020. But massive investment in energy production and transportation infrastructure will be needed to exploit these reserves. The capability, and willingness, of Middle East oil producers to exploit their low-cost reserves is a major source of uncertainty. For gas, the cost of supply and the impact of technology will be critical. There is a huge potential for expanding the supply of renewable energies if strong government backing can achieve steep reductions in their cost. Beyond 2020, new technologies such as hydrogen-based fuel cells, clean coal burning and carbon sequestration hold out the prospect of abundant and clean energy supplies in a world largely free of climate-destabilising carbon dioxide emissions.

World Energy Outlook: 2001 Insight costs US\$150.00 and can be ordered from: Books, International Energy Agency, BP 586, 5726 Paris Cedex 15, France, Fax: 33 1 40 57 67 75, Tel: 33 1 40 57 66 90, <http://www.iea.org/WEO/insights.htm>

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Newsletter on automotive fuels for the members of the
Implementing Agreement on Advanced Motor Fuels of the
IEA (IEA AMF)

Colophon

Fuels Update is released under the authority of the Implementing Agreement of the Advanced Motor Fuels Agreement of the International Energy Agency. Fuels Update, issued by IEA AMF/AFIS, gives short summaries on recently published articles, reports and books in the field of (advanced) motor fuels, without giving any rating to the information presented.

For your comments, suggestions or when you have news items that you wish to get known among the IEA AMF members and a wide variety of organisations working in the field of automotive fuels please contact:

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This newsletter is distributed by the delegates of the participating countries of IEA AMF, who are listed on page 4.

BIOFUELS

Use of biofuels expanding in the USA

The use of biofuels is expanding in the United States, according to Dr Raymond Costello, member for USA of the IEA Bioenergy. It is estimated that approximately 7.5 billion litres of ethanol will be used in motor fuels in 2002, about 2% of the total motor gasoline. While most ethanol is currently produced from grain, the use of lignocellulosic feedstocks provides the potential for lower costs and ensures availability of biomass feedstocks. DOE is conducting research on conversion processes for lignocellulosic feedstocks and operates a test facility at the National Renewable Energy Laboratory. Biodiesel has also increased rapidly in the United States from near-zero levels in 1996 to an estimated 25 million litres in 2002.

www.ieabioenergy.com

EU directives bio-fuels

The European Commission has adopted an action plan and two proposals for directives to foster the use of alternative fuels for transport, starting with the regulatory and fiscal promotion of bio-fuels. The Commission considers that the use of fuels (such as ethanol) derived from agricultural sources (i.e. bio-fuels) is the technology with the greatest potential in the short to medium term. The action plan outlines a strategy to achieve a 20% substitution of diesel and gasoline fuels by alternative fuels in the road transport sector by 2020. It concludes that only three options would have the potential to achieve individually more than 5% of total transport fuel consumption over the next 20 years: bio-fuels which are already available, natural gas in the medium term and hydrogen and fuel cells in the long term. One proposed Directive would establish a minimum level of bio-fuels as a proportion of fuels sold from 2005, starting with 2% and reaching 5.75% of fuels sold in 2010. The second proposed Directive would give EU member states the option of applying a reduced rate of excise duty to pure or blended bio-fuels, when used either as heating or motor fuel.

http://europa.eu.int/comm/taxation_customs/taxation/information_notes/fuel.htm

Germany

Although in principle favouring any efforts to raise biofuel use, the German government is questioning the tax proposal from the European Commission. In Germany, imposing 50% of fuel taxes on biofuels would make them more expensive than traditional fuels. In this case they would simply disappear from the market“, accord-

ing to an official at the German Agriculture and Consumer Protection Ministry. Fuel taxes are currently not imposed on biodiesel in Germany. Biodiesel production costs are about 300 euros per thousand litres more than those for conventional diesel.

Doubt

The German government does not think the goal of two percent of all fuel use can be reached by 2005. „German vehicle fuel use of all types is estimated at around 57 million tonnes in 2005. This would require about 1.1 million tonnes of biodiesel. We doubt whether this can be reached in Germany, which has one of the most advanced biofuels industries, let alone in other countries where the sector is hardly developed.” Target could be reached if the EU redefines it as two percent of diesel fuel, not total fuel, according to the official.

The German association for the promotion of biofuels, UFOP, shared the official's reservations about the EU proposal to tax biodiesel from 2004 at 50 percent of the tax rate on conventional diesel fuel, but believes Germany could reach the 2005 production goal, which would require an annual production rise of 500,000 tonnes per year. UFOP puts German biodiesel production in 2001 at 492,000 tonnes and says new refineries under construction will increase the total to around 800,000 tonnes in 2002/03.

France

In France there was also industry confidence that the EU's target could be met. Diester Industries, which markets biofuel for French oilseeds growers, said there would be no problem in

France in generating the big increase in biofuel production needed to meet the target of two percent biofuel use by 2005.

“The transport directive opens an enormous market. In France we will have to triple our production capacity by 2005, but we can do it,” according to Bernard Nicol, director general of Diester Industries. “From 2005, these directives will give a market for around 440,000 hectares of oilseeds. The French vegetable oil and protein sector, which supported this initiative from the beginning, is ready to take up the challenge with the entire farm sector and with the help of the government.”

www.planetark.org 8 & 9 November 2001; Reuters

MISCELLANEOUS

Motorcycles & Mopeds

In November last year the brochure *Motorcycles, mopeds: polluting emissions and energy consumption. Initial observation* was released by ADEME, France. This document is the result of a testing campaign to establish the state of the art of the present number of vehicles, their fuel consumption and the levels of pollutant emissions.

The present French fleet of two-wheel vehicles is very heterogeneous and generally lacking any anti-pollution system, which leads to high emission levels of carbon monoxide and unburned hydrocarbons. Mopeds have high emissions levels compared to those of 4-wheel vehicles, which have decreased markedly since 1970. The gap in polluting emissions between the two

– and four wheel vehicles has increased just a few years.

ADEME, Département Technologies des Transport, 500, route des Lucioles, 06560 Valbonne, France.

EU fuel quality

The EU Environment Council reached a political agreement on the proposal to introduce sulphur-free petrol and diesel in every member state from 2005 and from 2009 respectively. From 1 January 2005, member states are obliged to start introducing sulphur-low petrol and diesel.

From 1 January 2009 onwards, diesel and petrol with a content of less than 10 mg/kg (ppm) will be mandatory. So far, the limit was set on 50 ppm.

This year, the European Commission will evaluate the current status of low sulphur fuels in the member states and decide whether or not to include the tractors and other off-road vehicles in the regulations.

www.vrom.nl/http://europa.eu.int/comm/ebss/shotlist/ref22911.htm

Safer and easier process for cleaner burning fuel

Researchers at DOE's Idaho National Engineering and Environmental Laboratory have developed a safe, environmentally-friendly process to make alkylate, the cleanest-burning fuel available today. Researchers change low-octane gas into alkylate using bits of solid acid catalyst and then clean the catalyst when it becomes clogged using a pressurized, superheated solvent. The research team is presenting their laboratory results to the Oil and Gas industry,

and working with industry partners to further refine their system.

DOE Pulse, No. 93; November 5, 2001; [Deborah Hill, 208/526-4723, dahill@inel.gov]

PUBLICATIONS

Diesel Forum

Whereas in Europe clean diesel engines power one-third of all new automobiles, diesel cars are still hard to find in the United States. As the nation is developing a national policy on energy and overall SUV and truck sales exceeded car sales for the first time in 2001, Diesel Technology Forum executive director Allen Shaeffer is wondering why. In the recent Diesel Forum report “Demand for Diesels: The European Experience” the differences between the two continents in clean diesel technology and consumer acceptance of light-duty automotive application are outlined. This report can be downloaded from www.dieselforum.org.

PRNewswire, Jan 7, 2002

HYDROGEN

Singapore creating hydrogen stations

Singapore will create an infrastructure for hydrogen cars. The Economic Development Board has signed a corresponding letter of intent with British Petroleum (BP). Gary Oliver said for BP:

„You'll probably see the installation of hydrogen systems in 2003, with the construction one year ahead of the introduction of the vehicles, which could be 2004.” BP will introduce the fuel-

ling technology in one or two existing stations. Each will supply about 15 vehicles and cost between 0,5 and 1,5 M\$. Oliver thinks that the conversion costs will drop that as more hydrogen refueling stations are built the cost of installing them should decline.

Hydrogen Mirror 6/01; Earth Vision Environmental News, 23, October 2001

Driving on bacteria

American scientist discovered a new way to make hydrogen, with the help of a bacteria. They chemically imitated the active centre of the enzyme which is used by the bacteria to converse organic acids. During this chemical reaction, hydrogen is formed. The chemists still need to find a way to make the imitated enzyme soluble in water.

Intermediar, Oct. 18, 2001

LNG

Nigeria wants to end flaring in 2008

President Olusegun Obasanjo of Nigeria has called on oil multinationals operating in his country to harmonise their various plans for ending gas flaring before a deadline in 2008. Nigeria has 25 bn barrels of oil reserves and an estimated 139 bn cf (3.936 bn cm) of gas, according to a Dec. 1999 estimate. The country has been keen to promote LNG projects as part of a strategy to stop flaring gas associated with oil reserves. Nigeria hopes to earn as much from its huge gas reserves as it does from crude oil before the end of the decade.

Alexander's Gas & Oil Connections, Dec. 19, 2001.

NATURAL GAS

CNG fuelled buses in the Philippines

The Philippine government is stepping up efforts in developing other uses of natural gas aside from power generation. Energy Secretary Vicente Perez said the government would be pushing for the full commercial use of compressed natural gas for buses within the next two years. “By 2004, the government foresees that the whole of Calabarzon will be using CNG-fuelled buses for public transportation,” Perez said. Calabarzon groups the provinces of Cavite, Laguna, Batangas, Aurora, Rizal and Quezon. Perez's statement came after the inauguration of the country's first hybrid diesel/CNG-fuelled in December 2001. The government intends to convert the shuttle buses of the Department of Energy and Philippine National Oil into gas-fueled vehicles.

Source: www.inq7.net

NEW Website address IEA AMF

The IEA AMF website got its own, permanent place on the internet. For those who haven't visited the site yet, please take a look at www.iea-amf.vtt.fi

