ECTOS
Ecological City TranspOrt System

First NewsLetter

Edited.. by Icelandic NewEnergy
www.newenergy.is

ENERGY, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

ECTOS was launched 1st of March 2001. The partners' group is composed of SMEs such as Icelandic New Energy (IS), Shell Iceland (IS), EVOBUS (DE), and Strætó (IS), secondly international concerns like DaimlerChrysler, Norsk Hydro and Shell Hydrogen and lastly institutes: VINNOVA, the University of Stuttgart the University of Iceland and the Icelandic Technical Institute (IceTec, (IS)).

The goal of *ECTOS* is to execute a full scale demonstration of how hydrogen buses perform in an ordinary public transport system, using a zero emission fuel supply system and fuel cells to run them. Before launching the actual demonstration various preparations have to be made during two years. Therefore this first *ECTOS* – letter contains descriptions of auxiliary work to the bus driving session. The project was announced on an open meeting at the Reykjavik City Hall with 300 guests invited from all major Icelandic stakeholders concerning energy, hydrogen and ->

The ECTOS Project will be participating as an ambassador project within the exhibition of the Stockholm Partnership for sustainable Cities. A conference will be held in Stockholm June 4th - 8th 2002 to commemorate the 30 year anniversary of the Stockholm summit in 1972, - a very important milestone in the history of environmental protection. The ECTOS has been displayed and presented in Japan, Minnesota, Germany, Faeroe Isles, in Lyon, France, at the Malmö BO-01 exhibition, at the 7th Round Table for Cleaner production and at the Hanover Fair. Articles on ECTOS and the plans for hydrogen economy in Iceland have been covered by news agents such as BBC, Times, Newsweek, Wallpaper, Deutsche Welle, der Spiegel, Jonas, Die Welt am Sontag, Dagens Nyheter, ENVIRO and Red Herring

Within the ECTOS many studies will be made on social acceptance of the buses and fuel stations, environmental monitoring will be carried out and estimation of costs and benefits of the fuel cell - hydrogen technology will be performed within the conditions of Reykjavik. The aspects of these studies often overlap, - an LCA of the buses and fuel cells also touches on the aspects of the production methods of the fuel for example.

In December 2001 a public survey was made by the Sociological Institute of the University of Iceland. Respondents were 800 people picked randomly from the national register 16 - 76 years old. People were asked; Do you have a positive or negative attitude towards the progress of substituting oil as a fuel for buses, cars and ships with hydrogen ? 93% claimed to take a positive stand with hydrogen. People also claimed that information on the possibilities of using hydrogen is lacking, particularly women and young people.

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local administration and government. Professor Bragi Árnason, the first visionary for a hydrogen economy in Iceland, presented the possibilities of this new man-made energy carrier, and professor Þorsteinn Sigfússon explained to guests how a fuel cell really works compared to steam - and a diesel engine. In his words:

"Compared to the elegant fuel cell, which provides electricity without involving mechanic force, the steam engine might be called a dinosaur, a magnificent achievement, but bound to become extinct. "

The project coordinator, Mr. Jon Björn Skulason at Icelandic New Energy made the time plan and major milestones clear to the audience, also explaining why it is reasonable to carry out demonstration projects within the small Icelandic Society.

Infrastructure

A site has been chosen for the hydrogen filling station in Reykjavik. It will stand within the boundaries of the city of Reykjavik, in an area that is planned to be used mainly for industry and service activities. It will become an ordinary fuel station near main axes that lead to the centre and suburbs of Reykjavik and neighbourhood communities. The constructions will start during the autumn of 2002. It is not clear yet if the filling station needs to be moved later on, but that should not pose a problem. Norsk Hydro delivers the electrolyser, compressor and filling equipment in a compact module similar to a container that can be moved. The Reykjavik hydrogen station is the first one to become a part of an ordinary commercial fuel station operated by Shell Iceland.

Why is Iceland an obvious choice?

In Iceland it is possible to implement a "hydrogen based fuel cell project" in a next to zero CO2 conditions

Iceland has similar living standards and transportation systems as other European countries.

Three public buses within the city amount to 4% of the bus fleet in the city - the project will make a noticeable impact because of the scale

The government has announced its policy to make better use of the countries renewable energy resources to provide for national transportation.

The people of Iceland have in general a positive attitude towards hydrogen as a future fuel and would like to become less dependent on oil

The level of education and technology is among the highest i the world

Enjoying the energy sources

All the partners in ECTOS celebrated the launch of the Project by taking a dip in the Blue Lagoon. Even though the temparture in the air in March is just about 2°C the water is 35 - 40°C. Therfore the wooden platforms floating on the brine provide a good opportunity to get a fresh sensation from the luminous water.