



SMART-H₂

Iceland on the way to commercial hydrogen systems

Previous successful hydrogen demonstration projects in Iceland have inspired VistOrka (the largest shareholder of Icelandic New Energy) to allocate at least 3,5 million \$US to take the next steps into a hydrogen future entirely based on renewable energy. The SMART-H₂ (Sustainable Marine and Road Transport,- Hydrogen in Iceland), is a supported market introduction where different companies impose various demands on the hydrogen technology in mixed customer niches. SMART-H₂ involves hydrogen cars, operation of a fitted fuel cell system on board a boat, further development of hydrogen distribution, as well as research. VistOrka's role in SMART-H₂ is to form the steering committee for the project, finance its management, subsidise hydrogen vehicles, fully finance all equipment for an auxiliary power unit (APU) on board a boat and partially support the research to follow up all parts of the project. The SMART-H₂ will be one of the largest H₂ demonstrations in the world, the implementation phase starts in July 2007 and ends by 2010. Many Icelandic and international partners participate in SMART-H₂. Whereas the Icelandic partners in VistOrka are public companies this undertaking shows the devotion of the Icelandic community to hydrogen development.

The organisation of this diverse and comprehensive project will be described as the project unfolds along with the partners in each phase. The first steps are to introduce in July two A-Class fuel cell vehicles (from DaimlerChrysler) and ten retrofitted (by Quantum) Toyota Prius hydrogen vehicles in September. Customers select the type of car that fit their service fleets and buy or lease them; technical support is included. The first customers are energy companies, investment funds and the Herz car rental service. Then up to 30 cars will be provided according to demand and availability in 2008 and 2009. The type will depend on availability and the customer's selection, preferably fuel cell cars.

The Auxiliary Power Unit (10-15 kW hybrid system) based on fuel cells and gaseous hydrogen will be designed in Iceland and installed on a 150 passengers' whale watching vessel that operates from Reykjavik. The SMART-H₂ and the hydrogen economy concept will be outlined in a showroom onboard.

Data from the performance of the equipment will be collected extensively and used in research and supportive studies which is a large part of the SMART-H₂. Research institutes, universities, Master and PhD students have been appointed in order to follow up the outcomes, not the least on economic terms.

From end of April 2008 people in Iceland can rent a hydrogen car for an environmentally friendly sightseeing tour in Reykjavik and experience a memorable whale watching trip including hydrogen excursion at sea. For further info please contact:

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