

## April 2008 Overview

### 1. EHA in Action

#### ***EHA attended meeting with EU Commissioner Barrot. 2008-04-28***

The EHA attended a Meeting of the French EU policy group Espace Europe Equipement on EU Transport policy. EU Commissioner for Transport Jacques Barrot gave a candid overview of upcoming policies regarding green urban transport and improvements of the EU's transport infrastructure. He summarized DG TREN efforts in four actions:

1. Regulation: Directive on the promotion of clean transport vehicles, Euro norms, 120g CO<sub>2</sub> /km;
2. Investment: new rail infrastructure in collaboration with national governments: more national investment is needed in rail;
3. Tariffs: proposal for a Directive on external transport costs scheduled for this Spring;
4. Research: hydrogen was mentioned.

The EHA also asked the Commissioner how the Commission is planning to inform policy makers at local level about the best integration of new clean solutions. The Commissioner responded that the Action Plan that follows the Green Paper "Towards a new culture for urban mobility" will indicate suggestions; it will come out this autumn.

#### ***14th FC and H2 Group Exhibit at Hannover Messe brakes all records, 2008-04-25.***

With over 155 exhibitors and profiting from a significant increase in visitor numbers to around 200,000 - an increase of approximately 30%, the 14th edition of the FC and H2 Group Exhibit at the the Hannover Fair was a big success. This year marked the change from displays of prototypes to displays of products. Toyota presented its FCX in a theme exhibit of Japan, there was an announcement at the CEA stand of the new Peugeot 308 running on FC to be presented at the Paris Motorshow this September. The EHA stand together with the DWV stand distributed information on national and European projects. The EHA co-organised a seminar at the fair to present the Handbook for Hydrogen refuelling stations developed by the HyApproval project, the HYPER handbook on stationary fuel cell installations and the EU project H2 Training manual for a training course for technicians. Events of this type prove to be an excellent occasion for the EHA to profile itself as a promoter of relevant EU and national developments.

#### ***EHA becomes secretariat of European Regions and Municipalities Partnership for hydrogen and fuel cells, HyRAMP. 2008-04-14.***

After 6 months of intensive preparation, supported by the European Commission and the EU project HyLights, the European Regions and Municipalities Partnership for hydrogen and fuel cells was inaugurated in Brussels. HyRaMP seeks to contribute positively to carbon dioxide emissions reduction, environment protection as well as economic and jobs growth through the introduction of novel technologies, the harmonization of initiatives/activities and the establishment of new opportunities in an environment friendly and sustainable manner. HyRaMP's mission is to provide the European Regions and Municipalities with a representative body that can be coherent, distinguishable and influential towards the European FCH JTI and all relevant stakeholders and decision makers at both public and

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private level. The EHA has been asked to host the HyRaMP secretariat to help establish a permanent structure in the next 6 months. The secretariat will have its main office at the Palais des Academies in Brussels. See also under Secretariat.

***EHA invited to contribute to programme of FCH Stakeholders meeting. 2008-04-11.***

The EHA participated in a meeting organised by the FCHInstruct office and the JTI Industrial Grouping to discuss the programme of the first FCH Stakeholders meeting that will take place in Brussels on October 13-15, 2008. The FCH Stakeholders meeting should become the most important annual hydrogen and fuel cell event of the year in Europe. The EHA will contribute to the programme of the first day and has offered to facilitate contact with key MEP's and other VIP's that have contributed to the creation of the JTI. There will also be a possibility of an EHA press conference after the announcement of the JTI on the second day; the new EHA/DWV paper on Renewables and hydrogen could be presented there.

***EHA attended Commission presentation on Directive proposal for the promotion of clean road transport vehicles 2008-04-03.***

The objective of the proposal is to include lifetime emission standards in the procurements requirements for all vehicles of public authorities to create a level playing field. From 2012 the standards will be mandatory. Final acquisition decision rests with local authorities. Final tabling of amendments will be May 8, 2008.

***EHA attended discussion on Regulation on homologation of hydrogen vehicles in Environment committee. 2008-04-03.***

Draftsman Alojz Peterle (European Peoples Party, SL): referred to the need to better define hydrogen mixture vehicles to avoid that any percentage of hydrogen in natural gas would be defined as hydrogen vehicles he therefore suggested to take out mixtures of the definition art. (3) and to have the Commission define the percentages that contribute to CO2 reduction. He also suggested to refrain from identification of hydrogen vehicles. In addition he mentioned the need for more attention for hydrogen infrastructure development. Matthias Groote (European Socialist Party, PSE, DE) asked the Commission to speed up its support for harmonised authorisation of a hydrogen refuelling infrastructure. Vittorio Prodi (Alliance of Liberal Democrats in Europe ALDE/IT), referred to the need for homologation of mixture vehicles, including bio methane. Responsible rapporteur Anja Weisgerber referred to the possibility of introducing more modern identification methods of hydrogen cars as virtual signalling. The Commission considers the mixtures as "an excellent transition technology" where the infrastructure for gas refuelling in some countries is already in place. The mixtures according to the Commission should be in the implementing measures of the Regulation and be defined in art 12 to ensure that they have a place in the Framework regulation. The dossier will be put up for vote in the Internal Market and Consumers Protection Committee on May 26.

## 2. EHA Promotion

### Press

An EHA press release was sent on April 15 to announce the inauguration of the

European Regions and Municipalities Partnership on hydrogen and fuel cells and the role of the EHA as host of the HyRaMP secretariat. EHA's presence at the Hannover fair was also included

### **Membership**

- EHA spoke with the new CEO of Hydrogenics, Daryl Wilson, Hydrogenics is currently reviewing its membership to different organisations; EHA membership will be considered after new EHA fee structure is communicated
- PATH, the Partnership for Advancing the Transition to Hydrogen, an international coalition of hydrogen associations, has proposed a new membership structure and invited the EHA to become member as well. There are no membership fees and sponsors will be asked to finance activities. There will be a meeting at the WHEC in Brisbane where the EHA will communicate its interest to become a member.

### **Conferences**

- EHA has been invited to present educational activities in Europe at the Educational session on June 16, 2008 at the WHEC. At the last EHA Board meeting it was decided that Johannes Toepler will represent the EHA at this event;
- EU Project STORHY final event June 3-4, 2008 in Paris: <http://www.storhy.net/finalevent/>.
- 11th Ulm ElectroChemical Talks (11th UECT), June 10-12, 2008, Ulm. All details, the program and the registration form are available at: [www.wbzu.de](http://www.wbzu.de).

## **3. EHA Taskforces**

### **1. Hydrogen in the City:**

- The European Commission has announced a renovation plan of its European quarter in Brussels, pointing to the use of sustainable solutions for building refurbishment. The EHA has started discussions with Brussels officials to include hydrogen and fuel cell applications in a meaningful and visible way. The EHA is considering a stand at the FCH Stakeholder event with examples of suitable systems;
- The EHA has been asked to identify possible suppliers of forklift trucks running on fuel cells and hydrogen for the new Brussels International Logistics Centre. There are currently over 100 forklift trucks used in this facility.

### **2. Strategic Energy Technology Plan (SET Plan).**

The EHA will present the final version of the paper "Hydrogen and Fuel Cells as strong partners of renewable energy systems" that was developed in collaboration with the German Hydrogen and Fuel Cell Association. The last version is attached to this report. The paper will be presented to the European Commission and the EU Parliament as a contribution to the EU Strategic Energy Technology Plan that will be voted in the EU Parliament Committee on Industry, Energy and Research on May 28.

### **3. EHEC.**

With the announcement of the FCH Stakeholders event this October, the EHA Board at its Board meeting on April 28, decided, in order not to overload the Hydrogen conference agenda in Europe, to explore possibilities of organising an EHEC in conjunction with the FCH Stakeholders event, the Grove symposium and the WHEC.

#### 4. Statutes

EHA Statutes Taskforce has prepared an amendment to the EHA Statutes to allow community organisations, as Regions and Municipalities, and SME's to join the EHA. The EHA General Assembly will decide on this Statutes change at the Annual General Meeting which will be held the end of June.

### 3 EU News

**Commission launches consultation on barriers to off shore wind power.** 2008-04-28. The European Commission has launched a public consultation to identify key barriers to the large-scale uptake of offshore wind energy and help draw up an action plan later this year. According to European Wind Energy Association, EWEA, 50 GW of offshore wind could be installed by 2020 if offshore was to grow at the same rate as onshore wind has done in the past fourteen years. However, it said this is unlikely to happen due to "lead times for planning, lack of physical infrastructure, long project development times and short-term supply chain bottlenecks". The joint EHA/DWV paper "Hydrogen and Fuel Cells as strong partner of renewable energy systems" will be finalised in time to contribute this consultation. The consultation can be found at: [http://ec.europa.eu/energy/res/consultation/offshore\\_wind\\_energy\\_en.htm](http://ec.europa.eu/energy/res/consultation/offshore_wind_energy_en.htm).

**EIB launches €125 mln "Post-2012 Carbon Credit Fund" to finance clean energy projects.** 2008-04-28 The European Investment Bank (EIB) and four other public financing institutions have launched a € 125 million fund for clean energy projects that are to generate 'carbon credits' after 2012. The 'Post-2012 Carbon Credit Fund', which is the first of its kind, will exclusively purchase and trade 'carbon credits' generated after the Kyoto Protocol expires in 2012. The aim is to support the market value of worthwhile projects amid uncertainty over the actual form that the carbon credit trading regime will take after 2012. More info at [www.eib.org](http://www.eib.org).

**Major emitters avoid agreement on targets.** 2008-04-18. Delegates from the United States, Australia, Brazil, Britain, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia and South Africa met in Paris for a much anticipated 'Major Emitters Meeting'. "We achieved a consensus on the need for long-term and medium-term goals for reducing greenhouse-house gases," Jean-Pierre Jouyet, France's secretary of state for European affairs, told reporters after the meeting, the AFP reported. "But we have not got quantified targets at this stage and we regret this," he said. A report presented by the South African delegation stated that €127 billion in annual investments would be required to mitigate the worst effects of climate change, The 16 countries, accounting for 80% of the world's greenhouse gas (GHG) emissions, announced further meetings in May and June of this year.

**EU Project Roads2HyCom organises 2<sup>nd</sup> Regions' workshop.** 2008-04-14. The second workshop on Regional Development and Hydrogen Projects: will be held on May 29, 2008 in the Palais des Academies in Brussel. For more information on the programme and registration please visit: [www.roads2hy.com/workshop](http://www.roads2hy.com/workshop). The Workshop

is organised in collaboration with the new European Regions and Municipalities Partnership for hydrogen and fuel cells, HyRaMP of which the EHA hosts the secretariat.

***EESC stresses need for post and under graduate training in the JTI 2008-04-12.***

The European Economic and Social Committee in its opinion (INT 386) on the Joint undertaking for fuel cells and hydrogen indicated that the following measures are necessary:

- a genuine simplification of procedures,
- an information programme aimed at encouraging the necessary private and public funding to be released;
- the establishment of appropriate vocational training programmes to ensure that the skills of workers match the jobs created by this JTI.

***'Scramble' versus 'blueprint': Shell presents scenario for 2050. 2008-04-07.***

At a meeting organised by Friends of Europe, Shell presented two alternative scenarios to respond to the challenge of 50% increase in energy demand. The pessimistic 'scramble' scenario is characterised by a 'flight to coal' and nationalisation of energy resources in the context of increasing global competition for energy supplies. In this scenario, "demand-side policy is not pursued meaningfully until supply limitations are acute. Likewise, environmental policy is not seriously addressed until major climate events stimulate political responses," according to Shell. An alternative and more optimistic 'blueprint' scenario, favoured by Shell, features greater global co-operation between governments and the private sector. A CO<sub>2</sub> pricing mechanism accompanied by a functioning global carbon market would be a key feature of the blueprint scenario, as this would facilitate renewable energies and carbon capture and storage (CCS) technologies,. More info at [www.shell.com](http://www.shell.com) .

***JU-FCH dossier unanimously approved in EP Industry Committee 2008-04-08.***

The report on the Joint Undertaking for Fuel Cells and Hydrogen (JU\_FCH) of rapporteur Pia Locatelli (European Socialist Party (EPS) -Italy) was unanimously approved at the Industry Committee (ITRE) of the European Parliament. Ms. Locatelli put great emphasis on the governing structure of the JTI and the involvement of Member States. The report will be voted on May 19 in the Parliaments plenary meeting.

***Wind energy growth rate is leveling off in Europe, 2007-04-03*** In Germany, the growth of wind energy is being slowed by insufficient electricity grid infrastructure, hesitant investors, and rising raw material costs, notably for copper and steel, according to Ulf Gerder of the German Wind Energy Association (BWE). The BWE is pushing Berlin to up the country's feed-in tariff to 9.6 cents per kilowatt hour of wind energy produced on land. The government's current proposed rate of eight cents is not sufficient to convince banks to put up the necessary funding for new wind parks or for expanding electricity grids, according to Gerder. The European Wind Energy Association also cited the lack of trained technicians and engineers as weighing heavily on the minds of the industry that is unable to fill dozens of vacancies for qualified workers. The European wWnd Energy Conference was held in Brussels from April 1-4, 2008 The Commission wants wind to provide 12% of the bloc's power by 2020, up from the current figure of 3.7%. This would mean 9.5 gigawatts of new wind energy capacity to be installed

annually over the next 12 years. There are concerns the industry will fall short of the target. In 2007, only 8.5 gigawatts were installed.

**WWF published study on battery powered vehicles.** 2008-04-02 The World Wildlife fund has published a study ([http://assets.panda.org/downloads/plugged\\_in\\_full\\_report\\_final.pdf](http://assets.panda.org/downloads/plugged_in_full_report_final.pdf)) on the advantages of battery powered cars of internal combustion cars "Automotive transport is ripe for transformational change," it claims, and this cannot be achieved solely by finding new sources of carbonaceous material to liquefy. Instead, it says, the future lies in battery electric cars, which, though "relatively immature", can be "over 60% more energy efficient than today's conventional ICEV (internal combustion engines vehicles), across the entire plant-to-wheels life-cycle". ACEA the Association of Automobile Manufacturers' Director of Environment and Economics Rolf Stromberger commented that the challenge is "to develop a stage of technical maturity which is acceptable for the customer – as they do not accept comfort deficits – and with no additional costs compared to existing technologies". Technical challenges linked to heavy and large batteries must also be resolved. He believes that electric vehicles are "one option for future mobility and they will find their market" but likely to remain confined to "certain utilisation behaviours" such as short distance travelling, where infrastructure to recharge the batteries can be made available.

**EU CO2 emissions rise in 2007.** 2008-04-02 The carbon market consultancy Point Carbon publicised data on EU industrial installations and their CO2 emissions in 2007. The figures, which may be subject to adjustment by national authorities, indicate a 1.1% overall increase, according to an initial analysis by. Member states like Germany saw a 2% rise in emissions, and the UK emitted 85 million tonnes more CO2 than it was allocated. EU's overall emissions compared to the Kyoto base year of 1990 figures of the European Environment Agency (EEA) submitted to the United Nations' Framework Convention on Climate Change (UNFCCC) show that the 15 Member States which share the EU Kyoto target, reduced their collective emissions by 2.7%.

**Air Products "fulfills" 50,000th Hydrogen Refuelling** 2008-04-01

By way of cars, trucks, vans, buses, scooters, forklifts and even submarines, Air Products reached a milestone when it completed its 50,000th hydrogen filling. Fueling hydrogen powered transportation vehicles and other varied applications in 14 countries, Air Products reported hydrogen fillings have increased increasingly used at a pace of approximately 2,000 hydrogen fills per month.

#### 4. National News

##### France

On April 2, 2008 in the presence of the French Minister of Research and Higher Education a permanent exhibition on Hydrogen was inaugurated at the Palais de la Découverte. The inauguration was led by the president of the French Hydrogen association, Thierry Alleau. More info @ [www.afh2.org](http://www.afh2.org).

## Italy

Seven days after Milan became the site of the WorldExpo in 2015 H2IT invited local and national officials to presentations of hydrogen and fuel cell suppliers of commercial hydrogen and fuel cell applications. H2IT has created a Taskforce to define and promote a 7 year hydrogen and fuel cell integration plan leading up to the Expo in 2015. More info @ [www.h2it.org](http://www.h2it.org).

## Switzerland

This April the section Hydrogen and Energy at EMPA at the EHT Zurich, the home of the Swiss Hydrogen Association Hydropole, has started a new project, SNF Hydyna, on Hydrogen dynamics in complex hydrides. Of the different storage methods, metal hydrides and complex hydrides exhibit the largest volumetric hydrogen density up to 150 kg m<sup>-3</sup>, which corresponds to more than twice the hydrogen density of liquid hydrogen. Although many of these compounds are well known for their chemical behaviour, very little is known about their physical properties, e.g. structure, thermodynamic stability, electronic structure and hydrogen diffusion. This project investigates the hydrogen mobility and the hydrogen dynamics of a series of p-element complex hydrides and their influence on the stability and thermodynamic properties of the respective hydrides. Neutron diffraction as well as inelastic and quasielastic neutron spectroscopy measurements will be combined with nuclear magnetic resonance measurements. Project consortium includes SINQ (Paul Scherrer Institut, Villigen, Switzerland), BENSC (Berlin, Germany) and ISIS (Didcot, United Kingdom). More info @ [www.empa.ch/H2E/](http://www.empa.ch/H2E/).

## UK/France

**PSA Peugeot Citroen and Intelligent Energy present FCV 2008-04-22.** PSA Peugeot Citroën and Intelligent Energy presented the results of their joint H2Origin research project based in In Loughborough, near Birmingham, UK. The objective of the partnership is to integrate a fuel cell stack into a zero-emissions urban delivery van to power its electric drivetrain. The three-year partnership has culminated in the development of the Peugeot Partner H2Origin technology demonstrator, whose electric drivetrain is powered by the latest generation Proton Exchange Membrane.

## USA

Ballard and IdaTech signed a three year supply agreement for the backup power market, under which Ballard will provide its Mark1020 ACSTM product for integration into IdaTech's next generation 250 Watt iGen power supply. The agreement includes approximately 100 fuel cell product unit shipments from Ballard to IdaTech in the first year, with the potential for more than 1,000 units over the full three year term of the agreement. The fuel cell backup power market could see a significant driver shortly in the form of the Katrina Panel Order, that deal with the impact of hurricanes on the telecoms, public safety communications and media industries. The US Federal Communications Commission issued a proposed rulemaking last year which calls for the telecoms industry to maintain emergency backup power for a minimum of 24 hours for telecoms base stations, an interesting opportunity exists for fuel cells to be used as uninterruptible power supplies for the requisite 24 hours for telecoms base stations. More about this, as well as legislative developments in the EU, USA, and Japan can be found in Fuel Cell Today's Quarter 1 2008 Legislation Review: [www.fuelcelltoday.com](http://www.fuelcelltoday.com).

## 5. News form the secretariat

The EHA secretariat is hosting the European Regions and Municipalities Partnership for hydrogen and fuel cells to help establish a permanent structure in the next 6 months. The secretariat is staffed by Celine van Lierde, will have its main seat at the Palais des Académies, in Brussels from where the secretariat for educational activities on hydrogen and fuel cells, HYFED6, is already operating. The official contact info of the HyRaMP secretariat:

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