

October 2008 Overview

1. EHA in Action

EHA present at launch EU Strategic Energy Technology Plan. 2008-10-28.

Commissioner Janez Potocnik of Research and Andris Piebalgs of Energy launched the EU Strategic Energy Technology Plan (SET Plan) in the presence of heads of industry and EU policy makers. At the inauguration the FCH JTI was mentioned several times by the Commissioners as great examples of European Industrial Alliances to move forward a topic. The EHA contributed to the public consultation on the SET Plan, as well as organized a hearing and a proposal on the creation of an European Industrial Initiative on the development of sustainable hydrogen production chains. At the last Annual General Meeting of the EHA, the EHA brochure "Hydrogen and Fuel Cells as strong partners of renewable energy systems" was presented to the responsible EU officer of the SET Plan.

EHA presented EU policy developments at ZEMSHIP conference in Hamburg. 2008-10-23

The EHA was invited to give an update on EU policy affecting the use of hydrogen as an energy vector at the First ZEMSHIP conference in Hamburg. The objective of the ZEMSHIP project, financed by the EU LIFE programme is to build a fuel cell ship and refuelling station. ZemShip will be the world's first project resulting in a fuel cell-driven passenger ship. Proton Motor developed the 48-kW *PM Basic A 50 maritime* fuel cell system for the zero-emission drive and integrated two such systems, along with a lead gel battery, into the ship as a hybrid system. The systems were certified for maritime operations by Germanischer Lloyd. An intelligent energy management system coordinates the division of work between fuel cells and battery. Up to 50 kg of gaseous hydrogen is stored onboard in 350-bar pressurised tanks in order to provide sufficient fuel for around three days of use. More info at www.zemships.eu.

EHA sent out press release to salute the inauguration of the JTI FCH 2008-10-15.

The EHA congratulated the EU Commission and JTI Industrial Grouping with the inauguration of the JTI for fuel cells and hydrogen on October 14 in Brussels. The EHA highlighted the need to ensure that the use of hydrogen and fuel cells is also facilitated by upcoming important EU legislation as the Emission Trading System and the review of the Integrated Pollution and Prevention and Control Directive as well as the still pending review of the EU Fuels Directive.

EHA hosts first Annual General Meeting of European Regions Partnership, HyRaMP. 2008-10-15. The EHA facilitated the first Annual General Meeting of HyRaMP in Brussels. At the meeting the new HyRaMP Board, legal structure and Annual Work Plan for 2009 was approved. The EHA Board thanked the EHA for its continuous support in establishing HyRaMP as an organisation and for coordinating the HyRaMP secretariat since April of this year. The EHA facilitated also the creation of HyRaMP 's

website that lists all the HyRaMP Member Regions and their activities. For more information please visit <http://www.hy-ramp.eu>.

EHA organised meeting with technical staff of EU Parliament 2008-10-15. As part of EHA's effort to increase the visibility of hydrogen applications in Brussels, the EHA organised a meeting with the technical staff of the EU Parliament to inform them about the use of hydrogen applications, the inauguration of the JTI FCH and the fuel cell and hydrogen exhibition at Autoworld. The EU Parliament expressed an interest in the possibility of using hydrogen for back up power of the EU Parliament datacenters. The EHA will be sending the specs to interested members.

EHA invites Brussels Ministry of Transport and Environment to FCH JTI exhibit. 2008-10-14. The EHA invited officials of the Brussels Ministry of Transport and Environment as well as the Belgian Institute for the Environment (BIM) to Autoworld on the occasion of the inauguration of the FCH JTI to show different commercial hydrogen applications and to discuss potential projects in Brussels. The EHA accompanied the representatives to the stand of several EHA members to explain them possible ideas for urban hydrogen projects. Possible first locations in Brussels are the Brussels International logistics Centre, the Brussels harbor and the EU institutions quartier.

Industry and Finance Workshop at FCH Stake holders' event a success. 2008-10-13. The Industry and Finance Workshop co-organised by the New Energy World Industrial Grouping, Fuel Cell Europe and the EHA on the eve of the inauguration of the FCH JTI on October 14, saw the participation of a large number of EU decision makers and industry representatives. The EHA in its introduction to the Workshop referred to the need for joint and pro active action of public and private actors, as well as financing institutions to accelerate the market uptake of first applications in times where funding will be more tight. In addition the EHA called for increased collaboration with developing countries to ensure that the special advantages of hydrogen and fuel cell applications in off-grid areas will be put to use as soon as possible. A positive example was revealed at the workshop with the announcement of Idatech of a 30.000 FC order that includes the installation of 5kW gas powered PEM fuel cells in India for an Indian Telecom company.

EHA attended OECD forum on sustainable cities. 2008-10-10. EHA is actively follow urban sustainable development projects to identify programmes and local network activities that could help support the deployment of early market hydrogen applications. Recently several initiatives presented their plans for the Poznan meeting where the UNFCCC meeting in Copenhagen is being prepared. The OECD Round Table Strategy for Urban Development organised a seminar in Milan on "Competitive Cities and Climate Change". Speakers included C40 chair David Miller, mayor of Toronto, referring to major building refurbishment plans in the 40 major metropolis in the world under the C40 initiative, Ira Magaziner of the Clinton Climate Foundation who presented its activities in deployment of ICT to manage mobility patterns in bigger cities. The EHA is informing OECD Round Table of national and regional hydrogen project developments.

EHA was invited to IBM's "Shape your future Day". 2008-10-07 IBM presented its annual CEO study on new business opportunities in ICT. The EHA discussed the role of fuel cell as back up power for datacenters and the use of hydrogen

as electricity storage medium to facilitate the development of efficient smart electricity grids at the IBM business forum. In addition it discussed simulation models to map the integration of clean transport applications in the transfer of goods in big cities. The EHA has established an exchange with the national CEO network on the topic of hydrogen applications.

EHA met with the European Renewable Energy Council to discuss clean hydrogen production pathways. 2008-10-02

The EHA organised a meeting with the director of EREC the European Renewable Energy Council to discuss potential joined projects that demonstrate synergies between renewable energy and sustainable hydrogen production. EREC's position on hydrogen is neutral and does not actively support its use as a renewable energy storage medium. According to EREC hydrogen is an expensive solution that could only contribute to the EU's renewable and emission targets in the long term. EREC is regarding the use of battery powered vehicles a more economically feasible solution for clean urban transport in the short term. The EHA explained that most car manufacturers see battery powered electric vehicles as a solution for short trips in the city and that fuel cell powered electric vehicles will be able to help cover future consumer demand regarding long distance trips. As hydrogen is an excellent vector to store large quantities of electricity the EHA urged EREC to continue a pro-active dialogue as suggested by the EU Commission at the SET Plan hearing that the EHA organised last year, to identify opportunities to integrate the production of hydrogen in future large scale renewable energy projects.

2. EHA Promotion

Press

- EHA issued a campaign in Euractiv, from September 29, 2008 till October 13, 2008 to promote the EHA's organisation of the HyRAMP General Assembly and the inauguration of the JTI;
- EHA sent request to JTI and FCH Instruct office to start a better coordination of key messages to EU policy makers and to collaborate on socio economic issues.

Membership

- EHA is meeting with GdF Suez in November to discuss GdF Suez membership for 2009; the EHA is collaborating with GdF Electrabel among others, to develop clean energy projects with the EU Institutions in Brussels;
- EHA in collaboration with FAST is preparing a proposal to support the permanent HyRaMP secretariat. Deadline for the proposal is November 30, 2008.

Conferences

- EHA presented EU policy developments affecting hydrogen and fuel cells at the NWV Annual meeting;
- EHA presentation at H2Expo, ZEMSHIP Conference October 23, 2008 ;
- EHA has been invited to present updates on H2/CNG mixture projects in Europe at the IEA Task 23 meeting on November 13, 2008; *input is welcome*

- EHA is hosting a seminar on the public procurement of clean vehicles in Brussels on December 17, 2008 from 930 till 1300. More info at www.procura-fleets.eu.
- The EHA is preparing the next EHA national member association workshop on the occasion of the EU Sustainable Energy Week in Brussels from February 9-12, 2009. EHA National Associations are asked to communicate topics of their interests as well as requests to present their national programmes to include in the Workshop to the EHA secretariat at info@h2euro.org. The final date of the Workshop will be communicated shortly.

Financing

- First Call for JTI proposals was published on October 8, 2008: more info at
- Apart from the JTI funding other EU programmes also offer funding opportunities, some small others big. The Eurostars-Eureka programme (www.eurostars-eureka.eu/) is financing short term research and technology, deadline for applications is December 31, 2008.

3. EHA Taskforces

1. Hydrogen in the City

EHA attended a number of urban development sessions at the Regions Days in Brussels, that were held from October 6-10, 2008 to identify opportunities for collaboration for introducing early market hydrogen applications;

- Covenant of the Mayors, 70 cities collaborating to go beyond GHG : possible collaboration with HyRaMP: EHA met with DG TREN who is coordinating a secretariat for the Covenant. The Covenant is publishing benchmarked examples of best practice.

- Session on pre-commercial procurement: a Commission proposal is currently being discussed in the EU Parliament; the proposal seeks to stimulate public procurement of pre-commercial technologies. In the US \$50 bln is spent on this type of procurement while in the EU only € 2,5 bln. 47% of EU's GDP is spent on public procurement.

2. Strategic Energy Technology Plan (SET Plan).

As a result of the announcement at the inauguration of the SET Plan on October 28 (see EHA in Action) the EHA is verifying possibilities to coordinate input to the soon to be launched SESTIS Energy Technology Information System and to set up a communication line to the SET Plan Steering Committee of Member States' Representatives via EHA national association members. There has also been created a European Energy Research Alliance of the managing directors of 10 research institutions to align programmes and funding to the SET Plan activities; national associations are asked to inform the EHA of the names of participating research centers in their countries. A list of the countries can be found at <http://www.eera-set.eu>.

3. EHEC

At the last EHA Board meeting it was decided to follow up with the organizers of the Grove Symposium and their proposal to organise a one day hydrogen conference adjacent to the Grove Symposium. It was also decided to discuss further collaboration

with future editions of the FCH Stakeholder event. The EHA has sent a request for such a meeting to the JTI FCH Instruct office. The JTI responded that first a review of the questionnaires on the last event will be made.

4. EU 2009

A draft of an EHA Value proposition to communicate key messages to prospective members and EU decision makers has been discussed at the last EHA Board meeting . Next year the EU Parliament is having elections and a new EU Commission will be appointed by the new Parliament. The EHA Board suggested to include specific hydrogen and membership benefits and actions. The last draft is attached and comments are welcome.

4 EU News

EU Member States urge EU Council to take up CO2 emissions of passenger cars with EU Parliament. 2008-10-28

France – who is holding the EU presidency till this December and one of the EU's largest car producers in Europe together with Germany, Italy, and the UK - has tried to convince EU governments to water down the proposals and give industry more time and flexibility to meet the targets "There is a political will to avoid second reading in Parliament," said a Council source. Indeed, if the dossier is not adopted at first reading, it will need to go through a second round of negotiations. And with the Parliament effectively in recess as of spring 2009 to prepare for the European elections in June, there is little time left for compromise. The negotiating mandate allows the French Presidency to clarify plans that would delay until 2015 a requirement for carmakers to reduce average CO2 emissions from new cars. Earlier this month, its environment (ENVI) committee, which has the lead on the dossier, rejected demands to push back the emissions deadline from the original date of 2012. Other issues remain:

- Penalties: how to make fines an incentive for industry to invest in new technologies rather than pay fines;
- The relationship between eco-innovation and the extent of CO2 emission cuts;
- Derogations for small 'niche' manufacturers depending on the volume produced each year;
- The establishment of a long-term target for reducing emissions to around 90-100g/km by 2020.

130 European cities sign declaration to take local action on climate change. 2008-10-27. The non binding declaration signed by 130 cities in 34 EU countries, includes guidelines for implementing local policies to reduce greenhouse gas emissions by involving all local actors, better urban planning, transport and mobility, renewable energy and diversified energy production."Cities are best placed to speak with their citizens on global matters such as climate change" and to show how local level changes from waste management to public transport can contribute to facing this global challenge", said EURO CITIES, the European organisation of European municipalities who facilitated the declaration in a statement. 70% of the European population lives in an urban context. Proposed actions include sustainable public procurement, educational

partnerships, limiting urban sprawl and developing compact cities and new forms of mobility, the production of renewable energy. EUROCIITIES President and Mayor of Lyon Gérard Collomb. "The states must delegate to the cities the authority to act on a local level to reduce emissions, and undertake with the European Union to provide funding for initiatives supporting public transportation, housing, and energy," he added. More info at www.eurocities.org.

EU Commission published reports on results of EU Technology Platforms. 2008-10-21 More regulatory and standardisation efforts are needed to help translate research results into new products and services, concludes an independent evaluation of the European technology platforms (ETPs).

It is clear that the 30-odd ETPs launched by the EU since 2003, including the Hydrogen and Fuel Cell Technology Platform, have contributed to more R&D investment and helped to overcome EU research fragmentation, said Research Commissioner Janez Potočnik at a meeting of the platforms' industrial leaders. The evaluation also highlights the failure of the ETPs to make research results more easily translatable into new products and services. To remedy the situation, the evaluation recommends that ETPs "move beyond scientific and technological challenges" and instead start focusing on the application of research results. Those platforms which are more advanced and have already developed their Strategic Research Agendas should focus on "the regulations and standards that affect the commercialisation of research".

In addition, the evaluation concludes that the platforms have "underachieved" regarding the identification of future education and training needs and recommends the introduction of more initiatives in this field in the near future.

Finally, the report notes that there have been some "differences in expectations between the Commission, the ETPs and the various stakeholders" and that ETPs should also increase civil society and SME representation in the platforms and make their communication more transparent, said Commissioner Potočnik. The report is attached.

EU Parliament approves report on Directive for promotion of clean vehicles. 2008-10-22. The EU Parliament approved a compromise report on the promotion of clean and energy efficient road vehicles. The Directive will include mandatory criteria for public procurement of vehicles including CO₂ and other emissions. The Directive will be discussed in the Council of the EU this December. The EHA is hosting a seminar "Towards large scale procurement of Alternative fuel vehicles" on December 17, 2008 in Brussels, organised by the EU Project Procura (www.procura-fleets.eu)

EU Parliament Environment Committee approves ETS. 2008-10-07. A highly anticipated vote on the major EU Energy and Climate dossiers took place in the EP Environment Committee on October 7. The Committee approved the Emission Trading System report of rapporteur Avril Doyle including the amendment to earmark 50% of the ETS auction revenues to development of clean technologies, a topic that also the EHA included in its position paper that was sent to the Commission and the Parliament. Another issues of internal carbon leakage that the EHA and EIGA pointed out in their position papers have been partially dealt with in amendment 14: "Transitional free allocation to installations should be provided for through harmonised Community-wide rules in the form of ex ante sector specific benchmarks in order to minimise distortions of

competition within the Community. These rules should be based on the most greenhouse gas and energy efficient techniques and technologies, substitutes, alternative production processes, use of biomass, renewables and greenhouse gas capture and storage and take into account potential, including the technical potential, to reduce emissions. including subsectors.”

EU Parliament Environment Committee approves report on CCS. 2008-10-07. The EU Parliament Environmental Committee approved its report on the proposed Directive on Carbon Capture and Storage referring to the need to include all three CCS technologies, including pre combustion in which hydrogen is produced, in the proposed 12 zero emission power plants in Europe. Funding for the twelve plants has not been decided yet. It has been proposed to earmark some of the ETS revenues for CCS developments. It is expected that all dossiers will be voted in the EU Parliament Plenary on December 3-4, 2008.

4. National News

France

The European Commission agreed State Aid financing of the € 67 mln Horizon Hydrogen Energy (H2E) program. The program is dedicated to the development of hydrogen vehicles with State Aid on October 8, 2008. Air Liquide together with 17 other French companies are collaborating in the program. The European Commission commented that "when the market is unable to trigger R&D (research and development) activity, well targeted state aid can create the right incentives". Air Liquide recently opened its website devoted to the development of hydrogen as an energy vector at www.planete-hydrogene.com.

Germany

Last month saw the opening of the upgraded 700 bar hydrogen filling station in Berlin with the filling of the fuel cell car Hydro-Gen4 by GM/Opel. For the first time at a public station an infrared interface was used for data communication between filling station and vehicle. Ramping up the station to 700 bar was done by the Linde Group: the basic plant on the ground of the public bus depot Heerstrasse has been there for a while already; it comprises a cooling system (Ultra Low Cold Fill) for precooling of the hydrogen to shorten the filling time. The station can fill up vehicles with 5 kg hydrogen gas in three minutes. More info at www.linde-gas.com

Switzerland

Empa – the Materials Sciences & Technology Department Environment, Energy and Mobility Laboratory for Hydrogen & Energy in collaboration with the Swiss Hydrogen Association, Hydropole is organising the 3rd Hydrogen & Energy Symposium in January 28 .30 2009 in Braunwald, Switzerland. For more information please visit www.empa.ch/h2e **Materials Science & Technology**.

UK

In the same month that the UK Government announced it is increasing its CO2 reduction target from 60% to 80% by 2050 (like the new US President), Air Products announces

that it has experienced nearly 100% growth in its global hydrogen energy business in 2008. Its efforts included the fuelling of hydrogen buses at the Beijing Olympics and the first cross-country 3,073 mile fuel cell car journey across the United States. In the UK, Air Products has won contracts totalling several million pounds across the country for 7 key hydrogen fuelling projects announced during the year. Recent contract wins with Yorkshire Forward, Camden Council, the University of Loughborough and the Hebridean Hydrogen Seed (H2seed) project, follow Air Products' Transport for London contract win in March and the launch of the UK's first hydrogen fuelling station at the University of Birmingham in April. More info at www.airproducts.com.

News form the secretariat

Thanks to new Web software that allows more interaction with viewers and includes Google Earth positioning of projects and events, the EHA's website ranking by search engines has increased sharply ensuring larger visibility on the web of EHA's activities. The EHA also facilitated the development of the HyRaMP website that uses the same software. When both websites are interlinked a vast range of hydrogen developments in Europe can be accessed with one click.