February 2008 Overview

1. EHA in Action

EHA attended European Parliament Climate Action Workshop and organised meeting with responsible officers for the Emission Trading Directive *2008-02-27.* The European Parliament Green party organised a meeting to discuss the different legislative proposals for directives in the Climate Action package of the Commission that was presented on January 23, 2008. The Emission Trading Scheme (ETS) Directive, Renewable Directive and Green paper on Energy Efficiency. The EHA is organising meeting with DG Environment to discuss the consequences of the ETS Directive for hydrogen production companies on March 12, 2008 in Brussels. EHA members are invited to communicate their position on the ETS to the EHA secretariat to ensure that all arguments are included in the EHA final position on this dossier.

EHA met with European Parliament rapporteur for the European Regulation for the Homologation of hydrogen vehicles, 2008-02-27. The first exchange of view for this dossier were held at the EU Parliament Internal market and Industry Committee. No specific amendments were reported. The EHA was invited to submit some amendments or general comments: we suggested to refer to the need for a general, European wide harmonisation effort regarding the authorisation procedures for L type vehicles, the installation of stationary fuel cells and hydrogen refueling stations.

EHA met with DG Environment to discuss the authorisation of small hydrogen reformers in the new IPPC Directive. *2008-02-14* The new IPPC proposal was presented by the Commission on December 21, 2007 and did not include the EHA and EIGA suggestions to facilitate the authorisation of small hydrogen reformers of less that 100kg/hour. At the meeting the EHA urged the Commission to consider the role of hydrogen as a clean energy vector and facilitate the authorisation of small reformers and electrolysers. The Commission invited the EHA to submit more information on three topics:
- Emissions and waste generated by the production of 25 t/day of hydrogen by reforming or partial oxydation, which is the threshold capacity for inclusion of such activity in the scope of the ETS directive as currently drafted.
- Typical size of units producing hydrogen by electrolysis of water
- Explanation of the singularity of Hydrogen, which while being produced in very large quantities for its main application, is also produced commercially in very small quantities for many other applications.

This information is currently being prepared, input is welcome

EHA met with MEP Pia Locatelli's office, rapporteur of the JTI dossier in the EU Parliament, *2008-02-13*. The EHA communicated their support of the JTI and emphasized the need that the support for the development of hydrogen as an energy

vector is also reflected in EU energy, environment and transport policy as many current EU proposals will have consequences for hydrogen and fuel cell development. The EHA also strongly suggested to have Gijs Vriesman as chairman of the Industrial Grouping as a speaker form the Industrial Grouping at the EU Parliament Workshop on the JTI FCH dossier on March 6, 2008.

EHA approved the development of a paper on how Hydrogen can support the deployment of renewable energy sources. *2008-02-08* The EHA in collaboration with the German Hydrogen and Fuel Cell Association, DWV, has decided to support the compilation of a paper with the working title "The contribution of Hydrogen as a new energy vector to the development of the use of renewable energy." The following topics will be addressed in the paper:

1. The foreseeable limits of demand related supply of fossil fuel- summary of the first EHA study "Where will the Energy for Hydrogen Production come from.
2. Political requirements for the reduction of greenhouse gas emissions (EU Directive);
3. Utilization efficiencies respectively specific capability for CO2 avoidance of oil, natural gas and renewable electricity with respect to their relevance for the use in stationary applications hybrids or plug in hybrids respectively as well as in fuel cell vehicles;
4. Yield per acreage of renewable energies biomass in comparison to electricity;
5. Potentials of renewable sources in Germany and Europe (electricity and biomass) as well as potentials for the import of electricity (examples: baseline DLR study on Mediterranean, ESA- study, Scandinavia and UK)
6. Fluctuating renewable electricity and its potential for utilization in the electric grid;
7. Enhancement for the utilisation of renewable electricity through different storage media (Comparison of different storage systems including pumped hydro, compressed air, battery systems-stationary (e.g) NAS) and mobile (e.g. Li batteries in battery electric and plug in hybrids) and hydrogen.
8. First sectorial applications of hydrogen (e.g where it is available in large quantities and reasonably priced as by product form chemical industry):
9. Legal and political conditions for the mandatory introduction of fuel cell vehicles and hydrogen timelines, numbers and locations for market introduction (example ZEV in California and other 9 US Federal States);
10. Cost of hydrogen introduction in road transport illustrated by the results of the EU FP6 project Hyways.

2. EHA Promotion

Press

- EHA was asked by the France 2 radio station to comment on JTI development; the EHA office referred to the French Hydrogen Association for more information.
- EHA established contact with the editor of the BBC weekly "This is Europe" programme and offered to support coverage of the JTI FCH dossier.

- A new Euractiv campaign is being prepared to promote our presence and seminar at the Hanover Group Exhibit.

Membership
The EHA was referred to a new contact in BP involved in the promotion of CCS projects to discuss membership of the EHA: BP is interested in developing Carbon Capture and Sequestration technologies that include the production of hydrogen.

Conferences:
1.The EHA was invited to the International Hydrogen Development Forum in Fukuoka Japan to present the HyApproval project and local hydrogen project development; the Forum was attended by more than 300 participants. NEDO, the national hydrogen and fuel cell development office presented its strategy, Toyota disclosed its extensive fuel cell and hydrogen research activities.
2. 14th Group Exhibit Hydrogen + Fuel Cells, April 21-25, 2008 in Hanover, the EHA has confirmed a 10m" booth space. Like last year the EHA is collaborating with the DWV to present national association members activities and national association members are invited to communicate their interest to be a co exhibitor that allows them a presence with posters and brochures at the stand. The EHA also will also co-organize a seminar at the Fair to present the HyApproval, HYPER and H2 Training projects on Wednesday 23, 2008 at 1600 at the Group Exhibit premises.

1.

EHA Taskforces

1. Hydrogen in the City: The EHA attended the third meeting on February 13, of the Taskforce set up by the Commission to facilitate the creation of the European Regions and Municipalities Partnership for Hydrogen and Fuel Cells (HyRaMP). The EHA has proposed to facilitate organizational and secretarial support for the first year of the Partnership. The inaugural meeting of the Regional Partnership is planned for April 14, 2008 in Brussels. EHA national association members are invited to communicate potentially interested regions to the EHA secretariat at info@h2euro.org.

2. Strategic Energy Technology Plan (SET Plan). All participants at the development of a paper on the contribution of hydrogen to the deployment of renewable energy have been invited to review the new proposed EHA/DWV paper on this topic. In addition the EHA will also invite colleagues in renewable organisations to review the draft.

3. EHEC.
The EHA invited all EHA member association to communicate their potential interest in organizing the next EHEC planned for the middle of 2009. So far the UK and Swiss association communicated their interest.

4. EHA Statutes
The EHA office is verifying the most cost effective legal options to adapt the Statutes to allow local communities and small and medium sized companies active in hydrogen developments to join the EHA. The new Statutes and suggested fee structure will then

be submitted to the next EHA Board and subsequently to the AGM for general approval.

3 EU News

EU Internal Market, Industry and Research Council approves JU for Hydrogen and Fuel Cells. *2008-02-25.*
EU research ministers in the EU Competitiveness Council approved a regulation setting up a long-term Joint Undertaking for hydrogen and fuel cells, with the aim of reducing the time to market for these technologies by 2-5 years and thus cutting CO2 emissions. The Competitive Council reached an agreement on the essential elements for the launch of the EU 'Fuel cells and Hydrogen' joint technology initiative (JTI). The final decision of the Council of the EU is expected the first half of this year.

EU finance ministers call for 'cost-effective' climate policies *2008-02-12*
The Ecofin Council, the EU economics and finance ministers, adopted a document to ensure that EU climate change policies do not undermine public finances and job growth. The EU's carbon market and other 'market-based instruments' are the preferred option for cutting the bloc's carbon emissions, according to the ministers' conclusions: "A key challenge will be to ensure that the transition to a low-carbon economy is handled in a way that is consistent with EU competitiveness, sound and sustainable public finances and that contributes positively to broader growth objectives consistent with the Lisbon Strategy for Growth and Jobs," according to ECOFIN document that will be discussed at the Spring European Council on March 13-14, 2008.

EU Commission publishes first assessment of National Energy Efficiency Action Plans. 2008-02-08.The European Commission has issued a first report of energy-savings plans submitted by member states last year, pointing to a lack of political commitment to reduce energy consumption at national level. In the EU, the electricity demand will increase from currently 3300 TWH per year to 4300 TWH in 2030. Due to the ageing of the existing power plant portfolio and the phasing out of nuclear power in some countries, the generation gap, i.e. replacement and additional demand, will amount to some 2000 TWH. Assuming a mean utilisation of 7500 full-load hours per year for thermal power plants and 3000 hours for wind power plants as technically feasible, this would mean that approximately 333 combined cycle gas power plants of 800 MW each, or 133333 wind power plants with 5 MW each, plus reserve capacity, or 333 hard coal-fired conventional power plants with 800 MW each, or 167 nuclear power plant units with 1600 MW each would be required to make up for the estimated gap. These figures demonstrate clearly that a balanced energy mix and energy efficiency is vital for a secure and reliable electricity supply in the future.

EU launches 'Clean Sky' research project for low-carbon aircraft *2008-02-05*
European Research Commissioner Janez Potočnik yesterday launched a seven-year, €1.6 billion public-private partnership aimed at helping the aviation industry to develop environmentally friendly technology. Through the 'Clean Sky' Joint-Technology industry hopes to develop technology that will allow aircraft noise to be cut by half and emissions of CO2 and NOx to be slashed by 50% and 80% respectively by 2020.

EU Council established Taskforce to define sustainability criteria for new Fuel Quality Directive *2008-02-04.* EU Parliament and Member States are aiming to reach an agreement on the Fuel Quality Directive at first reading and on what sustainability criteria might be inserted into the text. An ad hoc working group has been set up, to draft "core criteria" for biofuels, that would be included both in the Fuels Directive and the proposed Renewable Directives. The group is expected to put forward recommendations in March. The Commission states that such criteria are already being proposed in the Renewables directive on presented on 23 January, which asks that 10% of all transport fuel consumption in the EU be covered by biofuels by 2020. Under the draft law, the EU executive proposes that biofuels that do not deliver life-cycle CO2 savings of at least 35% compared to fossil fuels - as well as biofuels planted in protected areas, grasslands, forests and wetlands should not count towards the 10% target.
The Fuel Quality Directive, proposed by the European Commission in January 2007, is an update of a 1998 directive that sets common EU standards for petrol, diesel and gasoil in a bid to cut air pollution. The proposed directive has become part of the Commission's efforts to reduce emissions from cars, because it would also oblige fuel suppliers to reduce, by 1% a year from 2011-20, carbon dioxide (CO2) emissions from the production, transport and use of fuels, ie, the lifecycle emissions. In the EU Parliament proposal for this Directive also hydrogen is now included.

4. National News

Germany

German Minister of Transport launches €1bln national hydrogen and fuel cell programme. *2008-02-18*

Exactly two years ago the German Minister of Transport Tiefensee announced the development of a National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP). On February 18, 2008 the Minister launched the German Association for Hydrogen and Fuel Cell Technology (Nationale Organisation Wasserstoff- und Brennstoff-zellentechnologie) that will manage the NIP in the coming 10 years with a budget of € 1 bln of public and private investment. Klaus Bonhoff, former Daimler and Kai Klinder, former CFC Solutions, will be the chief executives of the organisation.

Italy

The Italian minister of Economic development announced call for proposals for energy efficient technologies including hydrogen and fuel cells. *2008-02-20*.

In a press conference that will be probably his last as the Italian minister of Economic Development, Mr. Bersani announced a Call for proposals to be issued this coming March 3 under the Industria 2015 program. Around €10-11mln has been set aside for one big national hydrogen and fuel cell project. 15% of the project budget could cover also the participation of one or more foreign partners. This budget is in addition to the announced € 10 mln in the Italian government budget for 2008 for a hydrogen and fuel cell and related technology platform budget.

Slovenia

The Slovenian Hydrogen and Fuel Cell Platform has asked the EHA to facilitate contacts with responsible authorities of national hydrogen and fuel cell programmes and inform them about a meeting organised by the Slovenian presidency on May 15, 2008 in Ljubljana, that aims at setting up a network of national programme officers to coordinate EU (JTI) and national funding activities.
EHA national member associations are therefore kindly asked to inform national officials involved in hydrogen and fuel cell programmes about this event (invitation is attached). It would be great if national associations could communicate their national contact person details to the EHA secretariat for future reference.

UK
London creates low-emission zone including also large diesel trucks. *2008-02-04*
Trucks driving around the UK capital will be fined up to £200 per day if they are found to be over EU pollution standards in an attempt to improve the city's poor air quality.
The scheme, which began on 4 February 2008 and will run 24 hours a day, seven days a week, will initially apply only to large diesel trucks weighing over 12 tonnes.

5. News form the secretariat

The EHA secretariat is collecting input for the Hanover Fair presentation: recent pictures of new installations or project description can be sent to Tanya and will be included in a power point presentation for the EHA stand at the fair.