

Kick-off Meeting July 9, 2013

International Energy Agency, 9 rue de la Fédération, 7015 Paris

Room 2

## DRAFT AGENDA

The objective of the kick-off session is to clearly define the scope of the roadmap in terms of technology detail and coverage, regional focus, as well as discussed policy options. The IEA is also seeking for input with regard to available literature and finished studies to draw upon already existing expertise.

Time	Topic
8.30	Welcome & registration
9.00	Opening remarks, Didier Houssin, Director SPT, (IEA)
9:10	IEA roadmap approach and objectives of the H2 roadmap, Cecilia Tam (IEA)
9:30 – 11:00	<p>Roadmap scope discussion - Focus on technology I</p> <p><u>Presentations on analytical approach and overall modelling framework (IEA)</u></p> <ul style="list-style-type: none"> <li>• Demand sector models– Transport, buildings, industry, Alex Körner (IEA)</li> <li>• Supply sector – ETP TIMES, Uwe Remme (IEA)</li> </ul> <p>Prioritization of roadmap topics:</p> <ul style="list-style-type: none"> <li>• Analytical capabilities and limitations</li> <li>• Regional focus</li> </ul>
11:00– 11:15	Coffee break
11:15 – 13:00	<p>Roadmap scope discussion - Focus on technology II</p> <p><u>Presentations on analytical approach</u></p> <p>Sectoral breakouts:</p> <ul style="list-style-type: none"> <li>• Transport and H2 infrastructure, Alex Körner (IEA)</li> <li>• Stationary applications: Buildings and industry , Cecilia Tam (IEA)</li> <li>• Large scale energy storage (IEA)</li> </ul> <p>Prioritization of roadmap topics:</p> <ul style="list-style-type: none"> <li>• Sectoral detail and technology coverage demand side – transport, buildings, industry</li> <li>• Technology coverage H2 transmission, distribution and retail infrastructure</li> <li>• Sectoral detail and technology coverage – Large scale energy storage and renewables integration, P2G and blending, methanization, liquid/solid H2 storage media</li> <li>• Identification of key technological challenges and fields for RD&amp;D</li> <li>• Identification of inter-sectoral synergies</li> </ul>
13:00 – 14:00	Lunch

Time	Topic
14:00 – 15:30	<p>Roadmap scope discussion - Focus on market and policies under regionally different preconditions</p> <p><u>Moderated discussion</u></p> <p>Prioritization of roadmap topics:</p> <ul style="list-style-type: none"> <li>• Identification of market options and market barriers</li> <li>• Identification of policy levers, discussion of possible mechanisms</li> <li>• Technology diffusion/transfer and international collaboration needs</li> </ul>
15:30 – 15:45	Coffee break
15:45 – 17:00	<p>Messaging session</p> <p><u>Moderated discussion</u></p> <p>Roundtable discussion, proposed topics:</p> <ul style="list-style-type: none"> <li>• How to avoid stretched expectations</li> <li>• From technologic detail to high level messages – expectations, proposals</li> </ul>

## Europe Workshop July 10, 2013

International Energy Agency, 9 rue de la Fédération, 7015 Paris

### Room 2

#### **DRAFT AGENDA**

During the Europe Workshop we are expecting detailed and constructive discussions centred around the roll-out of hydrogen technologies in Europe. Stakeholders from industry, government and academia will provide their view on technology, infrastructure, market development and policy expectations in Europe.

<b>Time</b>	<b>Topic</b>
9.00	Opening of the WS
9:05 – 11:00	<p>System integration panel : What if – approaches to system integration</p> <p><u>Short presentations (5-10min) on technology potential and milestones:</u></p> <ul style="list-style-type: none"><li>• Fuel cell vehicle technology and market introduction (J.Wind, Daimler)</li><li>• Electrolysers/large scale energy storage (L.Bertrand, ITM)</li><li>• H2 in the steel industry (J.P.Birat, ArcelorMittal)</li><li>• NG blending/power to gas (tbc)</li></ul> <p>Discussion, proposed topics:</p> <ul style="list-style-type: none"><li>• Transport fuel, large-scale energy storage, industry feedstock – How to evaluate partial solutions in a complex system?</li><li>• Linking renewables integration and transport fuel demand – Transition to green hydrogen</li><li>• Chemical industry/refining industry H2 production and fuel cell vehicle roll-out – Key criteria for pilot regions?</li><li>• Hydrogen demonstration projects/case studies in Europe</li></ul>
11:00– 11:15	Coffee break
11:15 – 13:00	<p>Infrastructure panel: How to overcome Chicken and Egg?</p> <p><u>Short presentations (5-10min) on H2 infrastructure:</u></p> <ul style="list-style-type: none"><li>• HRS network and role of utilization rates (M.Weeda, ECN)</li><li>• Infrastructure roll-out/H2Mobility (tbc)</li><li>• EU strategies and H2 integration (M.Steen, JRC)</li><li>• Risk and risk sharing (R.Smith-Bingham, Oliver Wyman)</li></ul> <p>Discussion, proposed topics:</p> <ul style="list-style-type: none"><li>• Roll-out plans in EU countries and investment needs</li><li>• Synergies with existing H2 generation/transmission infrastructure</li><li>• The role of fleet vehicles on utilization rates</li><li>• Commitments of different market actors as means of risk sharing</li></ul>

13:00 – 14:00	Lunch
<b>Time</b>	<b>Topic</b>
14:00 – 15:30	<p>Market panel: Market options and challenges</p> <p><u>Short presentations (5-10min) on market options and challenges</u></p> <ul style="list-style-type: none"> <li>• Fleet vehicles and FCEV market introduction (R.Harvey, Hydrogenics)</li> <li>• Electrolysers and control power market (M.Waidhas, Siemens)</li> <li>• H2 in the chemical industry (F.Ausfelder, DECHEMA)</li> <li>• Electrolysis and flexibility (B.Decourt, SBC Energy Institute)</li> </ul> <p>Discussion, proposed topics:</p> <ul style="list-style-type: none"> <li>• Electrolysers – a key technology for various energy vectors</li> <li>• Niche markets for H2 applications and its enabling role: remote power, fork lifts, aircraft applications etc.</li> <li>• The role of standards for successful market FCEV market introduction</li> <li>• Are there lessons to be learned from the EV market introduction?</li> </ul>
15:30 – 15:45	Coffee break
15:45 – 17:00	<p>Policy panel: Industry and government – expectations and requirements</p> <p><u>Short presentations (5-10min) from industry and policy makers</u></p> <ul style="list-style-type: none"> <li>• A car manufacturers view (Julien Roussel, Toyota)</li> <li>• Linking the actors (tbc)</li> <li>• The role of standardisation –NG blending and integrated EU gas market (R.Judd, GERG)</li> <li>• Policy makers view (T.Constantinescu, DG Energy, European Commission)</li> </ul> <p>Discussion, proposed topics:</p> <ul style="list-style-type: none"> <li>• Discussion of policy measures: Direct subsidies, “feed –in tariff” like mechanisms, taxes, green certificates for NG blending</li> <li>• EU and international climate policy targets and its impact on H2 technology</li> </ul>

**For further information, please contact:**

Alexander Körner  
Email : [alexander.koerner@iea.org](mailto:alexander.koerner@iea.org)  
T : +33 (0)1 40 57 6657

Cecilia Tam  
Email: [cecilia.tam@iea.org](mailto:cecilia.tam@iea.org)  
T:+33(0)1 4057 6755