CCS Communication

Hans Van Steen
European Commission, DG Energy
Head of Unit - Renewables and CCS Policy
Fossil fuels in the energy mix: the past

Incremental world primary energy demand – by fuel, 2001 to 2011

Source: IEA WEO 2012
Role of CCS in the electricity mix

Share of CCS (%) in power generation towards 2050 – EU Energy roadmap
Six Conditions for successful CCS

1) Legislative Framework
2) Successful Demonstration
3) Commercial Viability
4) Public Acceptance
5) Innovation
6) Infrastructure
## Brief gap assessment

<table>
<thead>
<tr>
<th>Condition</th>
<th>OK?</th>
<th>Comments:</th>
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<tbody>
<tr>
<td>1) Legislative Framework</td>
<td>Yes (?)</td>
<td>Storage is enabled by the CCS Directive (2009/31/EC)</td>
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<tr>
<td>2) Successful Demonstration</td>
<td>-</td>
<td>20 demonstration-scale projects running, but none in the EU (none from EEPR or NER300)</td>
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<tr>
<td>3) Commercial Viability</td>
<td>No</td>
<td>ETS price too low</td>
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<td>4) Public Acceptance</td>
<td>-</td>
<td>Challenges particularly with onshore storage</td>
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<td>5) Infrastructure</td>
<td>Yes</td>
<td>Guidelines for Trans European Infrastructure</td>
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<tr>
<td>6) Innovation</td>
<td>Yes</td>
<td>Horizon 2020, The European Industrial Initiative on CCS (the SET plan)</td>
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What next?

1. Should Member States that currently have a high share of coal and gas in their energy mix as well as in industrial processes, and that have not yet done so, be required to:
   - develop a clear roadmap on how to restructure their electricity generation sector towards non-carbon emitting fuels (nuclear or renewables) by 2050,
   - develop a national strategy to prepare for the deployment of CCS technology?

2. How should the ETS be re-structured, so that it could also provide meaningful incentives for CCS deployment? Should this be complemented by using instruments based on auctioning revenues, similar to NER300?

3. Should the Commission propose other means of support or consider other policy measures to pave the road towards early deployment, by:
   - support through auctioning recycling or other funding approaches
   - an Emission Performance Standard
   - a CCS certificate system
   - another type of policy measure

4. Should energy utilities be required to install CCS-ready equipment for all new investments (coal and potentially also gas) in order to facilitate the necessary CCS retrofit?

5. Should fossil fuel providers contribute to CCS demonstration and deployment through specific measures that ensure additional financing?

6. What are the main obstacles to ensuring sufficient demonstration of CCS in the EU?

7. How can public acceptance for CCS be increased?
Thank for your attention


Contributions should be sent by 02/07/2013 to
European Commission
Directorate General Energy
Unit C1 – Renewables and CCS
Rue De Mot 24, B-1049 Bruxelles, Belgium

E-mail : ENER-CCS-COMMUNICATION@EC.EUROPA.EU