

Cefic answer to the Public Consultation of the European Commission on “The Future of Carbon Capture and Storage in Europe”

June 2013

- 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:**
- a. develop a clear roadmap on how to restructure their electricity generation sector towards non-carbon emitting fuels (nuclear or renewables) by 2050,
 - b. develop a national strategy to prepare for the deployment of CCS technology.

Cefic answer:

- In the long-term future (after 2030) CCS could become an important technology enabling a low carbon economy if certain conditions are met¹:
 - CCS is technically feasible and cost-efficient,
 - CCS bring added value along the three energy goals: competitiveness, security of supply and sustainability.
- While CCS is part of the future solution, it is not the “silver bullet” bringing one solution for all the diverse needs and conditions throughout EU-27 Member States (MS).
- CCS requires additional energy and thus reduces the total energy efficiency of industrial processes. The resulting net energy balance of CCS (with the current state-of-the-art technologies) is not compatible with the energy efficiency policies².
- The high energy cost in Europe, relative to our global competitors add to the uncompetitive business case for energy intensive industry.
- Further R&D efforts are needed in order to provide the market with a breakthrough technology which would help reducing the costs of CCS.

¹ [Cefic Energy Roadmap report](#): “CO₂ has been captured for nearly 100 years for industrial purposes or to increase oil production “ (page 61); “Deeper greenhouse gas emissions reduction is technically possible by decarbonisation of the power sector and, in addition, for the 2030–2050 timeframe, by carbon capture and storage applied to emissions from the chemical industry” (executive summary).

² For further information on the Cefic Energy Roadmap report “**European chemistry for growth - Unlocking a competitive, low carbon and energy efficient future**” (published on 22 April 2013) and the **Energy Roadmap Brochure “Energy policy at the crossroads”** (published 25th June 2013) please follow this link: <http://www.cefic.org/Policy-Centre/Energy/>



CCS could become an economically viable solution if alternative lower cost alternatives have been exhausted and technology improved respectively. Ultimately, market conditions alone must determine the preferred technology to reduce carbon emissions most cost effectively.

- Before taking any decisions on developing national roadmaps or strategies to deploy CCS on a mandatory basis the European Commission (EC) must:
 - Support adequate impact assessments looking at implementation costs and taking into account effects on the competitiveness of European industry,
 - Work in close cooperation with the MS.
- ⇒ **EU's energy and climate policy must strive for economic growth in Europe. In light of the current EC Consultation on 2030 energy and climate policies we suggest a revised, more holistic approach to ensure economic interests are safeguarded and investments in EU manufacturing are incentivised.**
- ⇒ **The improvement of European manufacturing industries' competitiveness must be the major criteria for all decisions taken - be it on ETS, CCS, RES etc.**
- ⇒ **A careful, step-wise approach is essential to avoid long-term subsidisation of high cost technologies.**

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?

Cefic answer:

- NER300 (reserved for CCS and innovative renewable energy technologies): 23 renewable energy projects awarded over €1.2 billion of funding (December 2012, second call on-going) – but still no significant investment in CCS!
- The reason behind the delays in the demonstration phase of CCS technologies is threefold:
 1. Limited public understanding and acceptance
 2. No robust business case
 3. Slow adoption of CCS in other parts of the world
- Purpose / objective of ETS is not to fund the development high-cost energy technologies:
 - Emission cap and trade ensures delivery on the agreed emission reduction target at lowest cost.
 - There is no possibility for policy (ETS, RES, and CCS etc.) cost pass-through for globally operating manufacturing sectors.
 - Competitive energy costs for consumers (citizens and industries) Affordable cost of energy is a critical driver for economic growth in Europe. Any artificial intervention that distorts market based economic approaches distorts this



objective. Subsidies unilaterally promote otherwise non-viable technology solutions at the expense of the EU manufacturing industry.

- Higher energy costs do not boost breakthrough technologies but increase risk of carbon leakage (investment leakage).

⇒ **More EU funds from auctions or derived from other sources will not automatically improve the business case for CCS investment in Europe.**

3. Should the Commission propose other means of support or consider other policy measures to pave the road towards early deployment, by:

- a. support through auctioning recycling or other funding approaches
- b. an Emission Performance Standard
- c. a CCS certificate system
- d. another type of policy measure

Cefic answer:

Please see point 1.

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

Cefic answer:

- Please see point 1.

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

Cefic answer:

- Fossil fuel companies are already involved in CCS development: In Norway, for more than 10 years, CO₂ has been captured at the Sleipner field and injected beneath the North Sea. Other initiatives have been developed in the USA, Canada, France, Italy and the Netherlands. The development of adequate technologies and financing mechanisms must not be forced upon industry unilaterally in Europe since this would burden the EU economy versus our international competitors.³

³ [Cefic Energy Roadmap report](#): "Technical improvements in the capturing of CO₂ will reduce investment, operation and energy-related costs. (p.61); "CCS is currently still in its first generation technology which is mainly in the demo phase. With the assumption that CCS takes off and worldwide installations will be built, the costs will go down—learning by research and by doing. This learning will only take place if CCS is picked up by many sectors, which is the working assumption for the scenario where a significant share of CCS uptake is foreseen by the chemical industry. (p.62)



- As a principle: a further increase of energy cost for European consumers, i.e. both the industry and households, must be prevented.

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

Cefic answer:

- See below.

7. How can public acceptance for CCS be increased?

Cefic answer:

- Transparency is the first step towards public acceptance.
 - Health and safety and the process of risk management,
 - Impact of wide-scale deployment on energy prices for all energy consumers,
 - Competitiveness of CCS technology vs. other low carbon technologies,
 - International competitiveness of European industry, as impacted by the consequences of the CCS technology implementation in Europe.

