

**Keynote Address of Mrs. Sophie Galey-Leruste  
Director of Energy and Mineral Resources,  
French Ministry of Economy, Finances and Industry**

**Plenary Session  
Meeting of Carbon Sequestration Leadership Forum  
Paris, France  
26 March 2007**

Ladies and Gentlemen

On behalf of Mister François Loos, Minister of industry, I would like to welcome you to Paris.

France is very pleased to host the Carbon Sequestration Leadership Forum (CSLF). A number of national players take a key part at international scale in research devoted to CO<sub>2</sub> capture and its long term storage, and this has been the case since the first European project in 1993. CCS research in France is supported by a dynamic scientific community and highly motivated industrial players. You will meet some of them during those three days. Alstom, Altran, CGG-Veritas, Dalkia, Gaz de France, Geostock, Schlumberger, Total and Veolia are participating, for example.

I think it is not useful, in such an assembly, to tell you about the challenges of climate change. It is now generally accepted that reductions in the emissions of CO<sub>2</sub> will have to be pursued. Those challenges need to be tackled effectively and urgently. The European Council three weeks ago has underlined once again the vital importance of achieving the strategic objective of limiting the global average temperature increase to not more than 2° Celsius above pre-industrial levels. The European Council has endorsed an EU objective of a *“30% reduction in greenhouse gas emissions by 2020 compared to 1990 as its contribution to a global and comprehensive agreement for the period beyond 2012, provided that other developed countries commit themselves to comparable emission reductions and economically more advanced developing countries to contributing adequately according to their responsibilities and respective capabilities”*.

It has also been stated that developed countries should act *“with a view to collectively reducing their emissions by 60% to 80% by 2050 compared to 1990”*.

How can we reach such medium term and long term targets in the energy sector, keeping in mind our other objectives, such as security of supply and competitiveness of our economy?

As a matter of fact, we cannot wait much before acting. Our nations will find themselves living 50 years, or more, with the choices they make today and tomorrow.

- Measures to reduce energy consumption and to increase the efficiency of energy conversion are immediately cost-effective and will deliver useful reductions in emissions.

However, introducing efficiency measures at a realistic pace will not be enough to meet the currently required CO<sub>2</sub> reduction requirements.

- It is quite clear that we need also to increase immediately and drastically the share of energy sources which have zero – or very low – or neutral – CO<sub>2</sub> emissions, such as biomass, nuclear energy, solar wind, hydro-power ... or “clean fossil fuels”, assuming those fuels can be burned in power plants equipped with environmentally safe Carbon Capture and Storage (CCS).

According to the 2005 Special Report on CCS from the Intergovernmental Panel on Climate Change, Carbon Capture technologies from stationary sources and Carbon Storage technologies, in geologic formations, stand as one of the most promising technologies to reduce CO<sub>2</sub> emissions.

Cost-effective and safe CCS would enable the world to continue to use fossil fuels – but with much reduced emissions of CO<sub>2</sub> – whilst preparing for the switch to a fully decarbonised economy.

CCS development, along with other energy technologies development, is crucial. Good roadmaps have been established and we know the way forward. A lot of work is still needed before we can reach our target: "zero-emission fossil fuel power plants as a standard". But the issues we have can be solved and we are increasing the pace:

- Firstly, we need fully integrated demonstration projects as soon as possible. This is the next very important step. As far as this country is concerned, I guess you know that group Total has launched a CCS project in south-western France. CO<sub>2</sub> capture, transport and injection are scheduled to begin end of 2008. I am sure other CCS projects will be soon launched in France.
- Secondly, legal environment for demonstration projects has to be defined. I know the CSLF and the IEA have worked a lot on this issue. A report focusing on French and European legal environment is also available on my ministry's web site.
- Thirdly, more R&D is needed, with two main objectives: reducing the cost and addressing the safety issues. My colleague Gilles Bloch from the Ministry of Research will tell you more about our actions in this field.
- Finally, we need to communicate more with all stakeholders and with the public. My ministry makes a survey on energy issues every year in France. Last week I have received the preliminary results of the last one. For the first time, a question

on CCS had been included. The results we have got show that 80% of French people have never heard – or say they have never heard - about CCS.

Ladies and Gentlemen,

Let me conclude my speech by saying that:

- CCS is not yet commercially available but its development is on a good track. We know the way forward. We are increasing the pace. I believe all issues can be solved as long as we focus on our objective, which is to achieve zero-emission as soon as possible.
- Co-ordination of R&D activities at international level is essential. We have made a lot of progress to co-ordinate our activities inside Europe but also outside Europe thanks to the IEA and thanks to the CSLF. We must continue to work together.

I am glad to see that this CSLF meeting in Paris has brought together many experts in the field from all other the world. Let us share our knowledge and expertise.

Finally, I would like to thank the CSLF secretariat, the organising committee, the IFP and its president Mr. Olivier Appert, who has helped a lot in organising this meeting and who will host tomorrow's workshop.

Thanks for listening to me. I wish you a pleasant stay in France and fruitful discussions.