



November 27th 2007

Fostering Investments in Cleaner Electricity Production from Fossil Fuel: the need for a cooperation between public authorities and energy operators

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Towards a low CO2 fossil fuel future

(European Commission, January 10^{th,} 2007)

- Stimulate the construction and operation by 2015 of up to 12 largescale demonstrations of sustainable fossil fuel technologies in commercial power generation;

- Provide a clear perspective when coal- and gas-fired power plants need to install CO2 capture and storage.

Different levels for public decisions

Supranational

(global & European

>Overall objective of reducing greenhouse gases

Overall goal for renewable energies (EU)

National

> Choice of energy mix

Local

➤ Land management

Issues the energy investors are confronted by

- Evolutionary standards
- National regulations
- Subsidies of renewable energies
- Pressures from the public opinion

A PARADOX

Utilities continue to invest in plants. The real generation margin has improved, but the new plants will use fossil fuels, thus increasing the CO2 emission volume

→ Electricity security of supply improvements seem incompatible with the EU CO2 emissions reduction targets

A SOLUTION?

Public authorities and energy operators have to agree on an overall goal without impeding social and economical growth

→ ENERGY TRANSITION BASED
ON A COOPERATION
BETWEEN PUBLIC AUTHORITIES
AND ENERGY OPERATORS

The need for a cooperation between public authorities and energy operators (1)

Taking profit from electricity markets liberalisation

i.e.: new green offers

Open markets should encourage suppliers to offer a range of innovative services to customers – concerning demand side management or "green solutions", for example.

On a larger scale, new ways of consumption can compensate carbon emissions from fossil fuel

<u>Drawback</u>: Improvement in electricity supply contracts depends on development of metering equipment incorporating the functions necessary to extending the range of contracts.

<u>Solution</u>: Energy regulators have to foster the development of smart metering equipments and to monitor their implementation. This solution requires a cooperation between regulators and operators which are concerned.

The need for a cooperation between public authorities and energy operators (2)

By promoting standards, taxes or subsidies, public authorities have to be careful not to distort competition rules and regulations

i.e.: reforming the ETS

- Objective: carbon price signal should induce moves to low carbon production and consumption choices at each stage.
- Drawbacks :
- administratively complex to handle;
- interaction with existing domestic policies and measures : companies compete on the same final market but are subject to different CO2 regulations.
- <u>Solution</u>: Market fundamentals should drive the allowance price in the medium term as a stable political and legislative framework enables the sustainable environmental and economic success of the instrument:
 - → the system must be mandatory and set absolute limits on emissions, as well as have robust registry systems and stringent monitoring and compliance provisions in place;
 - → avoiding windfall profits by cancelling free allocations to the operators concerned;
 - → the CO2 storage should be included in carbon trading scheme.

The need for a cooperation between public authorities and energy operators (3)

Strengthening « Private Finance initiatives » (Public private partnership) in energy Research & Development

i.e.: Carbon capture & sequestration (CCS) for gas-fired and coal fired plants

- <u>Drawbacks</u>: Existing capture technologies are not cost-effective;
- <u>Solution</u>: Several innovative schemes could significantly reduce CO2 capture costs, compared to conventional processes.
 - → public authorities must pilot programs with energy operators in order to try new techs that reduce costs of CCS.

Thank you for your attention!

Appendices

Towards an integrated climate and energy policy in Europe

European Council's conclusions (March, 7-8, 2007)

Gas emissions	A 20 % reduction of greenhouse gas emissions by 2020 compared to 1990 (*)
	For international negociations: a 30% reduction by 2020 compared to 1990
Energy efficiency	Saving 20 % of the EU's energy consumption compared to projections for 2020
Renewable energies	- A binding target of a 20 % share of renewable energies in overall EU energy consumption by 2020 (*);
	- A binding target of a 21% share of electricity produced by renewable energies by 2010 (directive 2001/77/CE)

Framework and objectives of the energy internal market in Europe

Opened electricity markets	Overall objectives
-free choice of supplier by consumers, -freedom of establishment, -non-discriminatory and transparent right of access at fair prices for all users of distribution and transmission systems.	- competitiveness - security of supply - sustainable development