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## **Round Table on Sustainable Development**

### **CHAIR'S SUMMARY**

**21st meeting of the Round Table on Sustainable Development  
Mobilising Investments in Low Emission Energy Technologies**

**27-28 April 2008  
OECD Headquarters, Château de la Muette, Paris**

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## **Mobilising Investments in Low Emission Energy Technologies**

*The following is a summary of the discussion on 27-28 April 2008, issued under the Chairman's authority. Please note that, in keeping with Round Table procedures, detailed conclusions will not be circulated.*

The discussion centred around two questions: firstly, how to develop the technologies that could reduce emissions sufficiently and in time to prevent dangerous interference with the climate system, and secondly, how commercial investments in these technologies could be mobilised.

### ***The scale and time frame of the required change in the energy sector is revolutionary***

There was broad acknowledgment of the enormous scale of the challenge and time frame in which changes need to come to pass. Even if the issue is high on the political agenda there is still insufficient understanding of this. Efforts should be made to help the public comprehend the scale of what is required. A lack of public acceptance is still an important barrier in many countries: nuclear, CCS and renewables all face opposition that limit their growth. At present there are no adequate national assessments of what is needed and the cost and opportunities of different alternatives. Governments seem to be working in different directions and have a different view on what should be done first.

### ***No technology can be left behind***

Stabilising GHG emissions at a level that avoids dangerous anthropogenic interference with the climate system requires that all technological options currently on the table or drawing board are utilised. It was noted that we do not have the luxury of picking and choosing between technologies; renewables, nuclear, and carbon capture and storage will all have to be expanded dramatically to achieve a virtual decarbonisation of the electricity sector. The implication is that the development and early deployment of these technologies cannot be left simply to the marketplace.

Governments have a role to play in setting the regulatory environment and in financing part of the development costs. The form and extent of government support will depend on the technology. The near-universal deployment of carbon capture and storage technology was singled out to exemplify this. Insufficient progress is currently made due to legal uncertainties and the very large capital expenditure required. It was suggested that a minimum price for every tonne of CO<sub>2</sub> stored should be guaranteed in the transition towards a more mature carbon market. The more ambitious the caps in trading systems, the lower the need for government support and vice versa.

### ***International collaboration on CCS needs to be expanded***

An argument was made for dramatically stepping up the international collaboration on CCS. As we cannot be choosy about technologies, a more serious effort on CCS is needed. It was suggested that CCS is as close to a "magic bullet" as one can get. If it is possible to set up a €10 billion international fusion demonstration project it should certainly be possible to increase efforts on CCS and bring on stream the 20 demonstration projects the IEA is calling for. Whether to set up new co-operative mechanisms for separate technologies is less clear, as this would come at the expense of policy cohesiveness.

There was a plea to accept CCS under the CDM. This could be seen as a litmus test of how serious we are in our commitments, though the lack on the demand side for emission reduction units needs to be confronted. The concerns to include CCS in the CDM, absorbing the larger part of the demand, are very legitimate. Finally, the cooperative mechanisms need to ensure a better geographical dispersion of effort.

***Targets can be an important political tool for steering investments and efforts in the right direction***

It was mentioned that targets have provided help in guiding public and private investment in the right direction. Feed-in tariffs were suggested as a way to support the target, though they should be dynamic and avoid the lock-in of inefficient technologies. Countries should not use them in an attempt to win competitive advantage. Governments can take an active approach by setting standards and codes in consultation with the industry, addressing trade barriers for low emission technologies and adopting new technologies early, as governments are often the largest single buyer in any country. A package of feed-in tariffs, renewable standards and rebate schemes have seen investments in renewables grow almost fourfold in the last half decade. The question now is how to continue these high growth rates and expand it to more countries.

***Governments need to act to improve the enabling environment in both OECD and developing countries***

Fossil fuel subsidies still stand in the way of many low emission technologies. There is insufficient knowledge of the carbon price implied in many policies and measures being implemented. Attention should not be focused only on the hard transfer of technology; the soft side, including capacity building, is probably as important. The focus on measurable, reportable and verifiable actions highlights the importance of data gathering. This is a very sensitive issue that needs government involvement. The social dimension of the competitiveness issues within developing countries also needs attention. Closing small and inefficient plants might be cost-effective but the social costs of this restructuring could be large, as these plants provide a lot of jobs.

Many governments are concerned about the costs of regulation. A solution could be the introduction of dynamic baselines that increase the assumed efficiency over time, thereby rewarding early movers and making adjustment more gradual.

***No emissions for free – don't subsidise the good, tax the bad***

There was some concern as to excessive focus on early deployment policies. Picking winners also means picking losers. Technology development is by definition uncertain and an innovation-centred approach should diversify the bets and test as many ideas as possible.

It was stressed that one should not subsidise the good but penalise or tax the bad. A reinvigoration of the polluter pay principle will drive investments. There is not enough information on the policies in place that are wasteful and leave emissions without a penalty or even be given a subsidy.

***Lack of institutional capacity is limiting growth at the supply side of the carbon market***

There is a clear role for governments to take responsibility for the political and sovereign risk of carbon credits in many developing countries. It is not possible for the private sector to take on these risks and therefore many projects that are considered 'low hanging fruit' don't get developed at present. The UNDP carbon facility was mentioned favorably in this respect as a vehicle that guarantees carbon credits are actually delivered when the project is executed according to the rules.

It was suggested that the investment regime and trade rules offer opportunities for improving the enabling environment for more investments in low emissions technologies. In addition, local banking systems need to be made aware of the opportunities that exist and therefore some multilateral funding is required to raise awareness on the opportunities and develop the toolbox to be used by the offices that have to validate and approve projects in the host countries.

A lack of absorption capacity was seen as a much more significant barrier to technology transfer than funding or intellectual property rights. Improving the capacity to absorb technologies seems to suggest a larger role for governments (education, research and development, quality of regulation).

***Demand for CDM projects is largely insufficient at present***

Calling for the scaling up and broadening of CDM to increase the supply of credits from developing countries is however irrelevant if demand is not increased. There is a reluctance to achieve emissions reductions overseas because of competitiveness concerns. In the EU plan, for example, commitments can only be met via CDM-type credits to a maximum of 20 percent if there is an international agreement. If there is no agreement, CDM credits are not allowed at all. But even in the case of an international agreement the demand for CDM can be met by existing projects and thus the CDM market will 'die' after 2012 if no other countries are going to step up their demand for these credits.

It was suggested that CDM could be 'sold' domestically by pointing out that the business sector could be trusted to deal with the competitiveness concerns. Companies will not want to buy emissions reduction units forever and will decide at which points internal abatements should be favored over external abatement. However, it was recognized that limits on CDM credits are not only driven by competitiveness concerns but are also induced by a concern that too many CDM credits would flood the market leaving the carbon price too low to stimulate any internal abatement efforts.

***Reducing emissions in developing countries is a joint responsibility***

There is no question that a cost-effective policy will mean that a lot of mitigation effort will have to take place in developing countries. This should be separated from the question of who should pay for this action. It has to be a package deal in which developed countries need to lead by example. It is clear from the discussions in Bali that if we would like to have binding commitments from developing countries there will have to be binding commitments in terms of technology and finance from developed countries. However, developing countries are not convinced that the market will work to deliver the technology and finance when developed countries take on sufficiently deep targets.

***A project by project approach is not going to deliver***

Though CDM has been more successful than anticipated by some it was suggested that it could never deliver the scale of emission reductions needed in developing countries on a project by project basis. The large scale projects have been mostly done and projects are now often smaller sized meaning that thousands of small projects will be needed, making it unmanageable under current regulatory procedures. There is an urgent need to reform the CDM.

***More specificity needed when discussing sectoral approaches***

Views on the potential of a sectoral approaches to enhance CDM were widely divergent made worse by widely varied understandings of what is meant by sectoral approaches. It was seen as unhelpful to propose a sectoral approach as a way to address competitiveness concerns in developed countries or as a first step towards an all encompassing (economy wide) trading system. Designing sectoral agreements as a transnational global agreement for a specific sector might only increase competitiveness pressures instead of lessen them. And as soon as sectoral agreements are seen as a slippery slope towards binding targets in developing countries they will be politically infeasible at present. A sectoral crediting mechanism that developing countries can adopt voluntarily to finance mitigation actions seems more acceptable. The competitiveness concerns of some energy intensive and trade exposed sectors in developed countries might then be better addressed by allocation procedures in developed countries.

***Carbon markets are not enough***

There is no one-size-fits-all solution. The transportation sector requires a different approach from electricity generation which in turn needs a different approach from the building sector. It is not going to be standards, markets or technology alone: a combination is required. But without proper carbon pricing all other options become much more difficult. In particular, if subsidies and taxes are not addressed to reflect the true cost of carbon there is no prospect of achieving the least cost outcomes modeled by the OECD and the IEA. It was also stressed that there is still much room for best practices that show that economic growth need not be compromised (too much) by deep emission reduction targets.