SPEAKING NOTES FOR NOBUO TANAKA

International CCS Regulators' Network Launch Event, 13 May 2008

Welcome to everyone. I am delighted that so many experts from the public, private, and non-governmental sectors are able to join us today. This meeting is the culmination of over 4 years of work by the IEA, our Member Countries, the Carbon Sequestration Leadership Forum, and many of you.

The IEA believes that Carbon Dioxide Capture and Storage (CCS) has a vital role to play in accelerating the transition to a low-carbon economy. Two key prerequisites for the wider use of CCS are the creation of appropriate incentives and the development of appropriate regulatory frameworks. The insights gained today will, I am sure, be of great value to all of us who seek to realise the full potential of CCS.

The latest edition of the IEA's annual publication, the *World Energy Outlook*, projects that, unless government policies change, world energy demand will grow by 55% by 2030. In addition, an increasing share of energy—82%--will come from fossil fuels. This rise in fossil fuel use will drive up CO_2 emissions by 57% between 2005 and 2030. Decisive government action on energy efficiency is absolutely necessary to slow this demand growth, but energy efficiency alone will not be enough. The world requires nothing short of an energy revolution to change the way we produce and use energy in the long term.

To help prepare for this clean energy revolution, the IEA will soon release the second edition of its *Energy Technology Perspectives* publication, or "ETP" as

we call it here at the IEA. The ETP examines a the contribution of a number of energy technologies to our clean energy future in a series of global scenarios to 2050. It identifies energy efficiency, renewables, CCS and nuclear power as major elements of a successful portfolio. Many other organizations – including governments and other bodies represented around the table today—have come to the same conclusion regarding the importance of CCS for climate stabilization.

Our ETP analysis indicates that if we are to move toward a CO_2 stabilisation scenario of 450ppm by 2050, with annual CO_2 emissions falling to 14 gigatonnes, CCS in power generation and industry will need to account for *one-fifth* of the necessary emissions reductions by 2050. However, the ETP also delivers a sobering message: in order to achieve this CO_2 stabilization goal, we *will need to increase the use of CCS 200-fold from today's existing enhanced oil recovery projects.*

CCS is important for other reasons as well. You cannot read today's newspapers without being concerned about record oil prices and the need for additional supplies of oil to meet growing global demand, particularly in poorer developing countries. CCS also provides important opportunities for enhanced oil recovery, contributing to increased energy availability and security.

However, while we can all agree on the importance of CCS for a clean, secure energy future, actual CCS experience remains extremely limited. While we are learning very important lessons from the 4 major CCS projects that are operating today, none involves integrated capture, transport and storage from

coal-fired power plants. The window of opportunity is rapidly closing: if we do not develop several integrated demonstration projects in the very near future, the cost of climate mitigation will rise dramatically as we use other technologies to achieve the necessary reductions.

There are good reasons why it has been difficult for government and industry to develop early demonstration projects. Coal-fired power plants with CCS cost significantly more to construct and operate than traditional coal plants. While a number of CCS research, development and demonstration projects have been announced to address this extra cost, there has unfortunately been very little to show for these efforts to date. In addition, demonstration projects have recently been cancelled or scaled back, citing cost escalations resulting from the dramatic rise that we are seeing in commodity costs worldwide.

It is clear that industry alone will not invest in CCS until they have long-term certainty, in the form of government CO_2 mandates or otherwise. Further, including CCS in emissions trading schemes may not even be enough. The EU's Emissions Trading System and proposed cap-and-trade schemes in the United States envision a key role for CCS. However, these efforts will not help to finance the critically needed early CCS demonstration projects today. As a result, it is clear that we need a *combined strategy*—one which combines mandates for CO_2 reduction with significant government cost-sharing for near-term demonstration projects.

While we work on these financing challenges, it is equally important to develop appropriate legal and regulatory frameworks to protect public health and the environment. This includes domestic frameworks for capture, transport and storage, and international frameworks for offshore storage and for adequate inclusion of CCS in international climate policies.

In 2007, the London Protocol and the OSPAR Convention sent a clear signal about the importance of CCS in mitigating climate change by enacting amendments to allow for offshore CO2 storage. Hopefully, the Parties to the Kyoto Protocol will follow suit and recognize the ability of CCS to generate credits under the Clean Development Mechanism. This advance would help accelerate deployment of CCS in the developing world, particularly in those countries with significant use of coal.

Recognising the need to address these challenges, the IEA has increased its focus on CCS in recent years. In addition to its work for the G8 on near-term opportunities for CCS, we have, for several years now, been facilitating information exchange on CCS regulatory options through meetings like this and related publications.

Today's meeting takes this work the next step: it is the launch of the International CCS Regulators' Network. The number of participants here today, especially those with policy making or regulatory authority, is testament to the need for a neutral forum to allow the exchange of good practice in the area of legal and regulatory frameworks for CCS. Over the next two days you will get a global overview of these rapidly changing developments, followed by

discussion of specific legal and regulatory issues associated with greater use of CCS. Finally, we will seek your input: how can we design the Network to best meet your evolving needs in this critical area of energy technology policy and climate change policy?

In closing, I want to thank the other organizations who have helped us to pull this meeting together, including University College London, the IEA GHG Implementing Agreement, the Carbon Sequestration Leadership Forum and the United Nations Economic Commission for Europe. Together, I believe we can address these challenges and opportunities, and I wish you a fruitful discussion, both at this workshop and through the CCS Regulators' Network in the future.