

IEA-RETD, the IEA Implementing Agreement on *Renewable Energy Technology Deployment*, and IRENA, the International Renewable Energy Agency, have the pleasure to host a Side Event at DIREC 2010.

## **The Role of Renewable Energy in Tomorrow's Energy Systems**

Thursday, 28 October 2010 at 17.45 - 19.15

### **Agenda**

The side event will address the potential of renewable energy and its representation in global energy scenarios. In addition, the event will address the sustainable use of biomass for energy and the importance of renewable energy for the transportation sector.

#### ***Opening***

- **Hans Jørgen Koch**, Deputy State Secretary, Danish Energy Agency, Climate and Energy Ministry and Chair of the RETD

IEA-RETD and IRENA both pursue the mission to promote renewable energy technologies (RET) and to define the role of Renewable Energy in tomorrow's energy systems.

#### ***Renewable Energies – their potentials***

- **Hugo Lucas**, Interim Director, Programmes, Capacity Building and Outreach

The annual RE theoretical potential overpasses 2000 times the actual global primary energy consumption. RE draws on natural environmental flows of energy, most of which by their nature are variable, dispersed, with relatively low energy-density, which significantly reduce the practical potential. Broader assessment of the potential, policy frameworks for RE technologies, lack of qualified workforce are global barriers that will be addressed by IRENA.

#### ***The role of Renewable Energy in global energy scenarios: The RETD ACES 400 ppm scenario***

- **Hans Jørgen Koch**, Chair of the RETD

Establishing credible and realistic global energy scenarios are crucial for guiding the development of energy policies and investment decisions. RETD seeks to provide input to global scenarios that more accurately reflect the potential of all available renewable technologies. Therefore RETD presents its own scenarios that have been developed with support of the IEA ETSAP Implementing Agreement.

## ***Critical issues of scenario assumptions – Sustainability of Biomass and the Transport Sector***

### ***Better Use of Biomass for Energy***

- [Uwe Fritsche](#), Öko Institut, Germany for RETD and Bio-energy Implementing Agreements

Biomass plays a crucial role in current and future energy systems. But the use of biomass is complex. How can be ensured that the potential of biomass is explored in a sustainable way? RETD will give the key messages for a better use of biomass.

### ***Use of Renewable Energy in the Transport Sector***

- [Eric Martinot](#), Institute for Sustainable Energy Policies (ISEP), Japan (*10 min., 5 min. discussion*)

The transport sector is one of the major emitters of greenhouse gases and the biggest contributor to oil-demand growth in non-OECD-countries. A transformation of the transport sector is needed - a revolution in technology, infrastructure, transport concepts and political framework in order to achieve the goal of at least 50% CO<sub>2</sub> emission reduction by 2050. RETD will show the synergies of a co-evolution of the transport and the renewable energy sector.

**Moderator of the event:** [Ralph Sims](#), Director, Centre for Energy Research. Massey University, New Zealand.

**IEA-RETD:** The IEA **Renewable Energy Technology Deployment** (RETD) Implementing Agreement is a corporation by ten countries. It acts as a catalyst for an increased rate of renewable energy technologies deployment, by proposing solutions and options to maximize both the share of renewable energy and the contribution renewables can make to climate change mitigation, security of energy supply and economic growth. International cooperation is essential in this respect. [www.iea-retd.org](http://www.iea-retd.org)

**IRENA:** The International Renewable Energy Agency was established in January 2009 as an intergovernmental organization to promote the widespread and increased adoption and sustainable use of all forms of renewable energy worldwide. To the benefit of its currently 149 members, IRENA will offer relevant policy advice and facilitate technology transfer, financing and capacity building in the field of renewable energy. [www.irena.org](http://www.irena.org)