

RETD RETRANS workshop 28 January 2010

The RETD Implementing Agreement

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The IEA RETD Implementing Agreement



RET D was launched at Bonn International Renewable Energy Conference 2004 – and formally established September 2005

RET D Member Countries are;

Canada, Denmark, France, Germany, Italy, Ireland, Japan, Netherlands, Norway and United Kingdom.
Observers: Sweden

RET D is a technology and market cross cutting implementing Agreement within the IEA with focus on deployment policies and other incitements to bridge “the valley of death” from R&D to market deployment



- The urgent need to address the rapid **climate change** caused by fossil fuel emissions that will skyrocket if action is not taken now
- Concern about **security of energy supply** due to
 - fluctuating (and in between skyrocketing) fossil-fuel prices
 - Increased acknowledgment that the oil and gas resources are becoming scare
 - Threats against oil and gas supply and dependency of import from few regions
- The need for and potential of a “**green economy**” to address the economical crisis and ensure economical growth and prosperity

Strong set of drivers for enhanced deployment of renewable energy technologies that are available today

1. Overarching and cross-cutting issues - addressing the role of renewable energy in climate change mitigation, securing energy supply and economic development

- **Quantifying the benefits of RE e.g.**
 - reduced costs of adaption to climate change,
 - increased energy security
 - Increased economic growth
 - reduced price volatility
- **Integrated sector cross cutting approach needed**

2. Key challenges and opportunities for large scale RE deployment in the different energy sectors representing different challenges and opportunities

- **Electricity sector**
- **Heating and cooling sector**
- **and transport sector**

1. Overarching and cross cutting issues

RE in Global Energy Scenarios - guiding policy and investment decisions
(ongoing since 2007)

RE deployment barriers, challenges and opportunities

1. Identification of main Barriers, Challenges and opportunities (2006)
2. Non Technical and Economic Barriers and opportunities (2009-2010)

Financing renewable energy projects – is often considered too costly

1. Policy Instrument Design to Reduce Financing Costs 2008
2. Risk Quantification and Risk Management (2009-2010)

Involvement of other sectors – is needed to meet the global challenges

1. **Better Use of Biomass for Energy** the most complicated RE source (2009)
2. Employment and Innovations through Renewable Energies (2009-2010)

2. RE deployment in the different energy sectors

Electricity sector – becoming the largest (renewable) energy carrier

1. Renewable Energy Costs and Benefits for Society (2007) – a web tool for policy makers www.recabs.iea-retd.org
2. Integrating variable renewable energy in electricity markets (2008)

Heating and cooling sector – the sleeping giant - 40-50% of total global final energy demand is for space. Yet in 2005 only 21% of gross RE production in OECD was for heating

1. Joint RETD and IEA Report on potential and policy recommendations (2007)
2. Deployment of RE Heating and Cooling in the Residential Sector (2008-2009)

Transport sector – representing a major challenge in reducing CO2 emissions and enhancing security of energy supply

1. Renewable energy for Road Transport – with focus on hybrid and electrical plug in vehicles (2009-2010)

1. Renewable energy in global energy scenarios

Establishing credible and realistic global energy scenarios is crucial for guiding the development of sound energy policies and investment decisions

- RETD facilitates the development of global energy scenarios that accurately reflects the potential of all available RE technologies

Since 2007 the RETD has played an active role in the development of scenarios by;

- Hosting 3 stakeholder workshops (2007, 2008 and 2009)
- Providing input to the IEA Energy Technology Perspective (ETP) 2008 and World Energy Outlook 2008-2009

Developing a **RETD Renewable Energy Scenarios** for achieving 420 ppm CO₂-eq presented at this COP15 RETD side event

2. Better Use of Biomass for Energy - a joint RETD and Bioenergy IA project

Biomass is the most complicated renewable energy source, with an increased demand for both energy, transport, food, feed and fiber, affecting many sectors and difficult to predict the future role of in scenarios. This calls for considerations on;

How best to use biomass for energy is presented at this COP15 RETD side event