



# Next generation RES-E policy instruments (RES-E-NEXT)

A workshop organised by IEA-RET D together with NREL and Ecar Ltd.

Thursday, March 21, 2013

Dublin, Ireland

## Background

In more and more regions the contribution of renewable energy is having significant impact on the electricity system. The energy transition is now getting tangible, but is often accomplished with growing pains.

Many countries face challenges in adjusting to the next step in the deployment of electricity from renewable energy sources (RES-E), particularly in the design of policy instruments, energy markets and regulation – and their interplay. With substantial shares of RES-E the operation and efficiency of current electricity market structures will be affected. Policy instruments can help to optimise system performance.

Potential issues include: RES-E curtailments; conventional power generation capacity pushed out of the market due to RES-E priority feed-in; market price mechanisms at times becoming obsolete when prices are at zero marginal costs; RES-E support schemes designed for initial uptake rather than for mature markets; etc.

Policy measures are required to continue promoting investment in RES-E but to also promote and reward investment in grid reinforcement and flexibility resources, e.g. through the use of locational marginal pricing and capacity markets.

**In light of these challenges, IEA-RET D has commissioned a study with the overall objective to provide an overview, analysis and contribution to the development of next generation RES-E policy instruments in the context of changing electricity systems and markets with high shares of RES-E.**

This study will contribute to the discussion on how policies can support the rapid transition towards energy systems with high shares of renewables in an efficient, secure, sustainable and affordable way. The workshop forms part of the consultation and communication activities of the project where participants are invited to feed into the final version of the report.

The project is undertaken by a consortium of the National Renewable Energy Laboratory (NREL, US) and Ecar Limited (Ireland).

## Workshop

The workshop aims to:

1. Present the preliminary findings of the study.
2. Discuss findings with policy makers, the research community and other stakeholders
3. Seek input and feedback that will be used in drafting the final report.

**Date:** Thursday, March 21, 2013

**Location:** Dublin, Ireland.

**SEAI Office (Wilton Room),** Wilton Park House, Dublin 2

<http://www.seai.ie/About Us/How to find us/>

**Reservations:** Please confirm your attendance at [iea\\_retd@ecofys.com](mailto:iea_retd@ecofys.com) before 22 February 2013.

Participation is by invitation only, but requests to participate can be sent to the given e-mail address.

## AGENDA

IEA-RETD Workshop on Next generation of RES-E policy instruments (RES-E-NEXT)	
March 21, Dublin	
08.30	<p><b>Registration</b> <i>Coffee and tea</i></p>
09.00	<p><b>Welcome</b> <i>Matthew Kennedy, IEA RETD Co-Chair, SEAI</i></p> <p><b>Introduction to the IEA-RETD, the RES-E-NEXT project, and workshop objectives</b> <i>David de Jager, IEA RETD, Mark O'Malley Ecar</i></p> <hr/> <p><b>Session 1 – Securing RES-E</b></p>
09:20	<p><b>Key Issues in Securing RES-E Generation</b> <i>Lori Bird, NREL</i></p> <ul style="list-style-type: none"> <li>• Initial uptake—How might policies designed to support the initial uptake of RES-E evolve?</li> <li>• Growth under high penetrations levels of RES-E (DK, DE, IE, ...) —What policies can help maintain growth of RES-E?</li> <li>• Supply-side efforts to mitigate integration impacts – What are benefits and challenges of policy mechanisms to minimise integration impacts while securing the RES-E supply chain</li> </ul>
09:40	<p><b>Facilitated Roundtable Discussion</b> <i>Critical review the presentation and discussions</i> <i>1-2 Interventions commenting the draft report</i></p>
10:40	<p><b>Networking break</b></p> <hr/> <p><b>Session 2 – Securing Network Extensions/Grid Infrastructure</b></p>
11:00	<p><b>Key Issues in Securing Network Extension/Grid Infrastructure</b> <i>Janusz Bialek Ecar</i></p> <ul style="list-style-type: none"> <li>• What is the best way to incentivise the development of the grid infrastructure required to support increased levels of RES-E?</li> <li>• How should these costs be recovered and is there or should there be an interaction with renewable support schemes?</li> <li>• What role can nodal pricing play in informing grid expansion planning and investment?</li> <li>• What role might concession-based or contestable infrastructure markets play?</li> <li>• What regulatory and policy issues are effective in supporting transmission development (e.g. renewable energy zones, reducing stranded asset risk, ...)?</li> <li>• Impacts of foregone renewable energy due to grid capacity shortfall or operational issues – who should bear the financial burden , how can the risks be mitigated?</li> </ul>

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<b>11:30</b>	<p><b>Facilitated Roundtable Discussion</b> <i>Critical review the presentation and discussions</i> <i>1-2 Interventions commenting the draft report</i></p>
<b>12:30</b>	<p><b>Lunch</b></p> <hr/> <p><b>Session 3 –Enhancing System Flexibility</b></p>
<b>13:30</b>	<p><b>Key issues in Enhancing System Flexibility</b> <i>Mark O’Malley Ecar</i></p> <ul style="list-style-type: none"> <li>• How can sources of flexibility (e.g. storage technologies (including batteries, combined heat-and-power, hydrogen), Demand-Side Management, reserve capacity, more flexible conventional plants etc.) be best combined considering technical characteristics, costs, benefits, scaling etc.?</li> <li>• How much flexibility is needed?</li> <li>• How should flexibility rewarded and incentivised?</li> </ul>
<b>13:50</b>	<p><b>Facilitated Roundtable Discussion</b> <i>Critical review the presentation and discussions</i> <i>1-2 Interventions commenting the draft report</i></p>
<b>14:50</b>	<p><b>Networking Break</b></p> <hr/> <p><b>Session 4 – Next-Generation Policy Interactions</b></p>
<b>15:00</b>	<p><b>Overview of Next-Generation Policy Interactions</b> <i>Jacquelin Cochran, NREL</i></p> <ul style="list-style-type: none"> <li>• How can the above mentioned issues be synthesised in a whole-system approach?</li> <li>• Which specific policy instruments or types emerge as the most promising candidates?</li> <li>• Which policy recommendations can be given?</li> </ul>
<b>15:20</b>	<p><b>Facilitated Roundtable Discussion</b> <i>Critical review the presentation and discussions</i> <i>1-2 Interventions commenting the draft report</i></p>
<b>16:15</b>	<p><b>Session 5 - Identify Near-term Policy Support Needs</b> <i>Facilitated Roundtable Discussion</i></p>
<b>16:50</b>	<p><b>Conclusions</b></p>
<b>17:00</b>	<p><b>Close</b></p>



**For further information please contact:**

#### **IEA-RETD**

RETD stands for “Renewable Energy Technology Deployment”. IEA-RETD is a policy-focused, technology cross-cutting platform that brings together the experience and best practices of some of the world’s leading countries in renewable energy with the expertise of renowned consulting firms and academia.

The mission of IEA-RETD is to accelerate the large-scale deployment of renewable energies. It is currently comprised of nine countries: Canada, Denmark, France, Germany, Ireland, Japan, the Netherlands, Norway, and the United Kingdom. Hans Jørgen Koch, Deputy State Secretary, Ministry of Climate and Energy, Danish Energy Agency, serves as Chair of the RETD.

The IEA-RETD Implementing Agreement is one of a number of Implementing Agreements on renewable energy under the framework of the International Energy Agency (IEA). The creation of the IEA-RETD Implementing Agreement was announced at the International Renewable Energy Conference in Bonn, 2004. For further information please visit: [www.iea-rettd.org](http://www.iea-rettd.org)

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#### **National Renewable Energy Laboratory (NREL), US**

The National Renewable Energy Laboratory (NREL) is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. Analysis at NREL aims to increase the understanding of the current and future interactions and roles of energy policies, markets, resources, technologies, environmental impacts, and infrastructure.

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#### **Ecar Limited, Ireland**

Ecar Ltd. is an Ireland based energy consulting and research company which provides the expertise the energy sector needs to plan and implement wholesale electricity markets, large scale deployment of renewable energy generation and emerging power system operating strategies. Ecar’s primary services are in project consulting, training and research and clients include Government departments, agencies and regulators, power system and electricity market operators, research organisations, electricity market participants and energy organisations.

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