

IEA Caspian Energy Policy Dialogue and Training  
Shanyrak Hall, Rixos President Astana Hotel  
3-5 July 2012, Astana, Kazakhstan

## Background

The International Energy Agency (IEA) was founded in response to the 1973/4 Oil Crisis, and its initial role was to help countries co-ordinate a collective response to major disruptions in oil supply through the release of emergency oil stocks to the markets. To date, the IEA has continued to work to ensure reliable, affordable and clean energy for its 28 member countries and beyond. It is a leading institution for global dialogue on energy, providing authoritative and unbiased research, statistics, analysis and recommendations.

The core areas of the IEA's focus are: 1) energy security: promoting diversity, efficiency and flexibility within all energy sectors; 2) economic development: ensuring the stable supply of energy to IEA member countries and promoting free markets to foster economic growth and eliminate energy poverty; 3) environmental awareness: enhancing international knowledge of options for tackling climate change; and 4) engagement worldwide: working closely with non-member countries, especially major producers and consumers, to find solutions to shared energy and environmental concerns.

The IEA continues to build good working relationships with countries beyond its membership, in particular major energy consuming, producing and transit countries. The Caspian region forms part of the priority regions for IEA engagement and the 2010 World Energy Outlook provided an in-depth analysis of the Caspian region's energy potential, once again emphasizing the importance of this region for diverse energy markets, while recognizing a vast potential for energy efficiency gains by reducing energy intensities and employing modern energy technologies.

The forthcoming energy dialogue and training event is designed to engage countries in the wider Caspian region in the discussions on energy technology perspectives, as well as to deliver energy-training modules, sharing best practices in the fields of energy efficiency and renewable energy.

The IEA Caspian Energy Policy Dialogue and Training event is jointly organized by the Government of Kazakhstan, represented by the Ministry of Oil and Gas and the Ministry of Industry and New Technologies and the International Energy Agency, with financial support from the European Commission, the Central Asia Regional Cooperation Program (CAREC) Institute and Regional Energy Security, Efficiency and Trade (RESET) Project.

Participation in this event is open to public and private sector participants from Afghanistan, Armenia, Azerbaijan, China, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.

## Programme outline

### *High-level energy policy dialogue*

Low-carbon technologies have a crucial role to play in the urgent transition to a sustainable pattern of energy supply and consumption. Faced with a wide range of choices, analysts and policy makers need to understand what these technologies can offer in terms of sustaining energy supplies, cutting CO<sub>2</sub> emissions, and ensuring affordability. Understanding the energy technology trends and looking for ways to

optimise the effectiveness of energy systems is a top priority, which requires concerted international effort.

Across the globe, government leaders have underlined the need to take action to accelerate deployment of energy technologies and many governments have increased expenditures in order to add impetus to research and development programmes and projects exploring frontier technologies.

However, the recent economic downturn has caused a decline of government budgets for energy technology research, whereas the private sector keeps increasing research and development expenditures for developing new technologies. Encouraging public private partnership and raising awareness, setting priorities, allocating funding, and designing programmes are therefore essential for technology breakthroughs.

High-level policy dialogue on the first day of this regional event therefore aims at engaging participating countries in discussions on existing energy technologies and best practices for setting national technology goals, enabling policy makers and business representatives to make the most informed and appropriate energy technology choices.

### *Energy Efficiency*

Energy efficiency is often the most cost-effective way to save energy and carbon emissions, but this requires a coordinated effort across many different sectors. The IEA offers in-depth international expertise in energy efficiency policy accumulated through dedicated research and drawing on the experience of its 28 member countries and numerous partner countries including China, India, Brazil, Russia, Mexico and South Africa. At the request of the G8, the IEA developed in 2008 a set of 25 key energy efficiency policy recommendations across seven sectors. They are used as a reference for policy formulation and implementation globally and are regularly reviewed and updated by IEA's network of international experts.

Modules on cross-sectorial energy efficiency policy design provide an overview of the fundamental elements of good energy efficiency policy design, implementation and evaluation. The IEA will provide a brief overview of the framework policies, based on international best practice and will outline core sectoral policies required for achieving optimal energy efficiency.

### *Renewables*

By 2050 it is estimated that nearly 50% of global electricity will come from renewable energy sources. Aware of their future importance, many countries, including those in the Caspian region, have made renewables a priority. In many countries large-scale deployment of proven renewables solutions has started while technological innovation continues. A sizeable renewables portfolio could contribute to a country's energy security, emissions reduction and access to energy. Serious hurdles still remain concerning the financing, affordability and grid integration of renewables. The IEA reviews in detail the renewables policies of its member and selected non-member countries. The IEA also drives the international information exchange through its well-established Renewable Energy Working Party and Technology Collaboration network.

The training module on renewables will outline state-of-the-art renewable energy technologies, assess their cost-effectiveness and possibilities for large-scale deployment. It will explore specific issues related to policy objectives, implementation pathways and milestones as well as grid Integration of variable renewables.

## IEA Caspian Energy Policy Dialogue and Training

3-5 July 2012, Shanyrak Hall, Rixos President Astana Hotel, Astana, Kazakhstan

### Programme

Tuesday, 3 July – High Level Energy Policy dialogue		
09:00 - 09:30	<b>Welcome Speeches and Opening Remarks</b> International Energy Agency Ministry of Oil and Gas, Kazakhstan Ministry of Industry and New Technologies, Kazakhstan Asian Development Bank	Amb. Richard Jones, Deputy Executive Director, IEA Kanatbek Safinov, Executive Secretary, MOG Bakhytzhan Dzhaksaliyev, Vice Minister, MINT Guanghui Li, Country Director, ADB Mission to Kazakhstan
09:30 - 10:30	<b>Energy Technology Perspectives</b> Launch of the IEA Energy Technology Perspectives Publication	Amb. Richard Jones, Deputy Executive Director, IEA
10:30 - 11:00	Coffee Break	
11:00 - 11:45	<b>Kazakhstan Initiative for Inter-Regional "Green Bridge" Partnership Program</b>	Ruslan Iskanderovich Bultrikov, Assistant Minister, Ministry of Environment, Kazakhstan
11:45 - 12:30	<b>Panel Discussions on Technology Initiatives</b> Chaired by Kazakhstan: brief technology initiatives presentations by participating governments	Chair: Alibek Kabylbay, Head, Office of Energy Saving and Energy Efficiency, Ministry of Industry & New Technologies
12:30 - 14:00	Lunch Break	
14:00 - 15:00	<b>Tools for International Energy Technology Collaboration</b> <ul style="list-style-type: none"> <li>• Energy Technology Network</li> <li>• International Low-Carbon Energy Technology Platform</li> <li>• Thematic Bilateral Events</li> </ul>	Ulrich Benterbusch, Director, Office of Global Energy Policy, IEA
15:00 - 16:00	<b>IEA Energy Technology Roadmaps</b> <ul style="list-style-type: none"> <li>▪ Role of roadmaps in accelerating technology development</li> <li>▪ IEA methodology for Roadmap Development</li> <li>▪ Examples of IEA roadmaps</li> </ul>	Nathalie Trudeau, Energy Analyst, Energy Technology Policy Division, IEA

WITH FUNDING FROM

16:00 - 16:15	Coffee Break	
16:15 - 17:30	<p><b>IEA Energy Efficiency Indicators</b></p> <p>The development of data and analysis to develop energy efficiency indicators to:</p> <ul style="list-style-type: none"> <li>▪ Understand past trends</li> <li>▪ Assess the potential for further savings</li> <li>▪ Track energy efficiency and policy progress</li> </ul>	Nathalie Trudeau, Energy Analyst, Energy Technology Policy Division, IEA
17:30 - 18:00	<b>Way Forward</b>	Ulrich Benterbusch, Director, Office of Global Energy Policy, IEA
<b>Wednesday, 4 July - Training Module on Energy Efficiency Policy Measures</b>		
09:00 - 11:00	<p><b>Session 1: Energy Efficiency Policy Frameworks</b></p> <ul style="list-style-type: none"> <li>▪ Energy Efficiency drivers and barriers</li> <li>▪ Importance of indicators</li> <li>▪ Overview of the 25 Energy Efficiency Policy Recommendations for proven international practices and implementation</li> </ul>	Robert Tromop, Head, Energy Efficiency Unit, IEA Sara Pasquier, Programme Manager, Energy Efficiency Unit, IEA
11:00 - 11:15	Coffee Break	
11:15 - 13:00	<p><b>Session 2: Energy efficiency governance:</b> developing institutional arrangements and coordination mechanisms for energy efficiency policy implementation</p> <ul style="list-style-type: none"> <li>▪ Institutional arrangements and coordination mechanisms</li> <li>▪ Target setting and policy combinations</li> <li>▪ Innovative implementation options (energy providers)</li> </ul>	Sara Pasquier, Programme Manager, Energy Efficiency Unit, IEA Robert Tromop, Head, Energy Efficiency Unit, IEA
13:00 - 14:30	Lunch break	
14:30 - 15h30	<p><b>Session 3: Financing Energy Efficiency</b></p> <ul style="list-style-type: none"> <li>▪ Public-Private Financing Options</li> </ul>	Anvar Nasritdinov, Principal Manager, Energy Efficiency and Climate Change European Bank for Reconstruction and Development
15:30 - 15:45	Coffee Break	
15:45-17h30	<p><b>Session 4: Saving Electricity in a Hurry:</b> energy efficiency strategies and solutions during energy crises</p> <ul style="list-style-type: none"> <li>▪ Presentation of the IEA publication and case studies</li> <li>▪ Application to Caspian region</li> </ul>	Sara Pasquier, Programme Manager, Energy Efficiency Unit, IEA Robert Tromop, Head, Energy Efficiency Unit, IEA
17:30 - 18:00	<b>Session 5: Way forward</b>	Robert Tromop, Head, Energy Efficiency Unit, IEA

WITH FUNDING FROM

## Thursday, 5 July - Training Module on Renewable Energy Technology Policies and Planning

09:00 – 11:00	<b>Session 1: Introduction to renewable energy</b> <ul style="list-style-type: none"> <li>Technology, markets and economics</li> </ul>	Hugo Chandler, ex-IEA expert
11:00 – 11:15	Coffee Break	
11:15 – 13:00	<b>Session 2: Policy overview</b> <ul style="list-style-type: none"> <li>Designing effective policies to support renewables</li> </ul>	Hugo Chandler, ex-IEA expert
13:00 – 14:30	Lunch break	
14:30 – 16:15	<b>Session 3: System integration of renewables 1</b> <ul style="list-style-type: none"> <li>The challenges: variability and uncertainty</li> <li>The solutions: beneficial electricity system features</li> </ul>	Hugo Chandler, ex-IEA expert
16:15 – 16:30	Coffee Break	
16:30 – 18:00	<b>Session 4: System integration of renewables 2</b> <ul style="list-style-type: none"> <li>Best practice to date</li> </ul>	Hugo Chandler, ex-IEA expert

WITH FUNDING FROM