

Re-defining Climate Ambition To “Well-below 2°C”

Workshop

20 June 2016

International Energy Agency Headquarters, Room 1

9 rue de la Fédération

75015 Paris, France

Context and objectives

The recent outcome of COP21 and the policy momentum gained before and right after the conference provides the opportunity to re-define climate ambition and move the goalpost to an even more ambitious goal. One of the pillars of the UNFCCC agreement reached in Paris in December 2015 is to “keep global temperature increase ‘well below’ 2°C and to pursue efforts to limit it to 1.5°C”. The IEA has been providing scenario analysis on the energy sector transformation required to keep temperature increase below 2°C in its World Energy Outlook and Energy Technology Perspectives for nearly a decade.

This technical workshop aims at identifying sectoral opportunities to achieve a faster and deeper energy-sector decarbonisation that would respond to the Paris agreement. The workshop is designed to inform the IEA modelling teams by exploring technology opportunities by sector, the potential leverage of non-technological factors, as well as the challenges and required strategies to achieve a scenario in line with the Paris Agreement Objectives.

With the objective of identifying potential analytical streams by sector on the ‘well below’ 2°C scenario (WB2DS), the IEA will host an international workshop that seeks the participation of experts from national governments, businesses and industry (including the financial community), academia, international organizations, NGOs and think-tanks. The workshop will be aimed at identifying potential venues for analysis on the WB2DS from the discussion among participants, drawing insight from their diverse backgrounds and rich expertise.

Scope

The thematic scope of the proposed workshop, while based on a “conventional” sectoral approach (buildings, industry, transport, and energy transformation), will also be complemented by discussions on the cross-cutting streams that encompass more than one end-use and transformation sector. These cross-cutting streams are seen as: (a) the role of energy technology innovation in accelerating decarbonisation; (b) institutional, policy and economic challenges; (c) cross-cutting fuels and technologies (e.g. bioenergy, carbon-capture and storage (including BECCS and industry applications), hydrogen, etc.); (d) materials efficiency strategies; (e) the potential role or need for non-technological structural changes (e.g. avoid and shift in the transport sector, changes in floor area growth and service level expectations in buildings sector, etc.) and possible trade-offs between non-technological levers and advanced low-carbon technology innovation; (f) the integration of variable renewable energy sources through systems innovations in smart energy systems such as enabling demand response, energy storage and linking various energy carriers (electricity, gas heat, etc.). Finance and stranded assets are additional discussion topics to be considered.

The workshop will be held under the Chatham House rule.

Agenda

08:30-9:00	Registration
OPENING 9:00 – 9:15	Welcome and opening remarks Kamel Ben Naceur, Sustainability, Technology and Outlooks Director
INTRODUCTION 9:15 –9:45	IEA Scenarios: Re-defining Climate Ambition <ul style="list-style-type: none"> • <i>Decarbonisation scenarios in the World Energy Outlook</i> Laura Cozzi, Energy Demand Outlook Division Head • <i>Re-defining climate ambition to “Well-below 2C”: Background and proposed ETP analysis</i> Jean-François Gagné, Energy Technology Policy (ETP) Division head
SESSION 1 9:45 -10:45	Emissions pathways, technology innovation systems and policy frameworks for well-below 2°C scenarios Moderated by Daniele Poponi, ETP Senior Energy Analyst and Timur Gül, WEO Senior Energy Analyst <u>Speakers</u> <ul style="list-style-type: none"> • <i>Under what assumptions can the ambition of the Paris Agreement materialize?</i> Joeri Rogelj, International Institute for Applied Systems Analysis • <i>Bridging the scenario-implementation gap: the role of technological innovation</i> Jim Skea, Imperial College and WG3, IPCC • <i>“Well below 2 degrees”: The potential role of buildings and other novel demand-side approaches in deep mitigation</i> Diana Urge-Vorsatz, Central European University and WG3, IPCC
Coffee break	
SESSION 2 11:15 – 13:30	Sectoral opportunities and challenges for more ambitious decarbonization paths (break-out groups) Moderated by IEA Sectorial leads (in meeting rooms) <i>In the first part of session 2, sectoral experts from buildings, industry, transport, and power will gather in break-out groups running in parallel and managed by IEA team leads to discuss the opportunities for reducing CO₂ emissions below 2DS levels in each sector.</i>
Lunch break	
SESSION 2 14:30 - 15:00	Sectoral opportunities and challenges summary (break-out groups) Moderated by IEA Sectorial leads (in meeting rooms) <i>In the second part of session 2, sectoral experts will summarise their discussions, highlighting key elements and strategic areas for analysis in each sector. At the end of session 2, participants will reconvene in plenary.</i>
SESSION 3 15:15 – 17:45	Summary of break-out sessions and cross-cutting issues discussion Moderated by Eric Masanet, Head of Energy Demand Technology Unit, ETP
SESSION 4 17:45 - 18:00	Workshop Summary and Conclusion Jean-François Gagné, Energy Technology Policy (ETP) Division head Daniele Poponi, Energy Technology Perspectives Project Manager