

## MEETING REPORT: ETN – IEA WORKSHOP LONDON, UK, 8 OCTOBER 2013

<b>ETN Participants</b>		
1.	Abdulnaser Sayma	City University London
2.	John Oakey	Cranfield University
3.	Catherine Goy	E.ON New Build & Technology
4.	Sauro Pasini	Enel
5.	Christer Björkqvist	ETN
6.	Karen Geris	ETN
7.	Peter Breuhaus	IRIS
8.	Peter Jansohn	Paul Scherrer Institute
9.	Herwart Honen	RWTH Aachen
10.	Bernard Quoix	Total
11.	Chris Lappee	Vattenfall
<b>International Energy Agency Participants</b>		
12.	Steve Heinen	IEA
13.	Sean McCoy	IEA
<b>Invited Participants</b>		
14.	Andy Boston	Energy Research Partnership
15.	Jacob Klimstra	Jacob Klimstra Consultancy
16.	Ross Moffat	Scottish Southern Energy

To strengthen the cooperation between International Energy Agency and ETN, ETN was invited to participate in a workshop to review the final draft of the chapter on gas power technologies in IEA's Energy Technology Perspectives 2014. The ETP is the key technology publication of the IEA that provides long-term global technology assessments for the achievement of a sustainable energy system under the so-called 2°C Scenario (2DS). The 2DS, if achieved, would give the world an 80% chance of keeping average global temperature rise below 2°C compared to pre industrial levels.

During the meeting, the IEA presented the draft of the ETP Gas Analysis after which the participants discussed the content of the report in 4 sessions:

1. Regional Market Outlook and Impact on Technology Development
2. Technology Requirements and solutions for Different Markets
3. Fuel Composition
4. Impact of Market and Policy Uncertainty on Technology Development

The full agenda of the Workshop can be found by [clicking here](#).

## **1. Regional Market Outlook and Impact on Technology Development**

The participants commented that the suggested gas power generation targets are not realistic, as large scale CHP would not make sense with good insulation and the development of the HAT cycle is too expensive.

The experts also commented that the 2DS scenario and the suggested technology choices are not economically realistic and urged the IEA to clearly show the associated cost with each technology to ensure that the readers of the report realise the expected costs.

## **2. Technology Requirements and Solutions for Different Markets**

The participants extensively discussed the definition of flexible power generation to determine if coal could be considered as a flexible power source given its increasing ramping rates in state of art plants. The participants also discussed the numbers on hot start data and asked the IEA to review the data before publication.

To the issue of flexibility upgrades for combined cycle plants, the attendees confirmed that upgrades of the HRSG would be instrumental to improve the ramping rates of CCGT plants.

## **3. Fuel Composition**

When discussing the fuel composition and emissions, representatives from the Oil & Gas industry indicated that though they do not have a problem with emissions, the constantly changing gas quality and composition extracted from the gas fields can pose a problem with the limits posed by the OEMs for stable operation. The Utilities stated that the problems they are experience are mostly due to the rate of the change in the gas quality, including but not limited to factors such as the Wobbe index

It was also stated that the development of new gas turbines to react to varying gas quality changes is a matter of cost – various developments have already been implemented in new gas turbines.

## **4. Impact of Market and Policy Uncertainty on Technology Development**

The participants noted that in addition to coal, there are several other technologies that are currently in competition, or could complement gas turbine power generation, including storage and power-to-gas but that these would need considerable investments.

One of the attendees strongly stated that he did not believe that the costs of CCGT would become lower in the future and that it is more likely that single cycle gas turbines would be preferred for future installations as they have considerably lower CAPEX.

The IEA thanked the participants for their active involvement and candid responses.

The IEA also gave a shorter presentation on the Energy Technology Perspectives during the ETN October Workshop, please [click here](#) to view it. The IEA would like to invite all ETN members who could supply any additional information to include in the ETP to contact [Steve Heinen](#) from from the IEA, with the [ETN Office](#) in CC.