



Second Announcement

10th – 11th March, 2015

Lisbon, Portugal

Workshop on

CCS in Process Industries- State-of- the-Art and Future Opportunities

**A Joint Workshop organized by IEA Greenhouse Gas R&D Programme (IEAGHG) and
IEA Industrial Energy-related Technologies and Systems (IETS)**

Background

With the on-going efforts to reduce global CO₂ emissions, CCS in industry has been identified as one of the important measures in the overall strategy to mitigate greenhouse gas emissions. Thus, RD&D work in this area has increased substantially in recent years.

The workshop is aimed to provide a forum for the oil refining, chemical and petrochemical, and pulp and paper industries to exchange information and discuss different issues that could impact the development and future deployment of CCS in their respective sectors.

So far, due to their high level of CO₂ emissions, the iron and steel and the cement industries have gained the highest interests in developing CCS technology in their respective sectors. However, the oil refining, the chemical and petrochemical, and the pulp and paper industries are other important examples of industry where CCS could play an important role in mitigating CO₂ emissions. These industrial sectors have several similarities in terms of the conditions necessary to deploy CCS. Majority of these industries have multi-point emission sources in a single site, and with a very close link to their steam and electricity production. Therefore they should have much in common with regard to the class of CO₂ capture technologies needed. Hence, there are good opportunities for technology and knowledge transfer between these industries in the CCS area.

Today, the pulp and paper industry mainly uses biomass as fuel, whereas the other industries predominantly use fossil fuels. In the future, both industrial CCS and the use of biomass should be important to all industries in meeting CO₂ emissions targets.

This workshop should initiate the discussion among the different industrial sectors to identify the key challenges to the future deployment of CCS in the process industries. The target groups for this workshop are energy and environment experts in industry, national and international policy makers, and researchers in the area of industrial CCS.

Objectives

The general aims of this workshop are to present an overview to the current state-of-the-art technology in industrial CCS and to improve our understanding to the different challenges in deploying CCS in the oil refining, chemical/petrochemical, and pulp and paper industries.

Additionally, the workshop aims to highlight the following:

- To identify what short-term actions are needed to achieve the long-term goals of deploying CCS in these sectors,
- To discuss the technical and economic challenges in the future deployment of CCS to these industries, and
- To evaluate what RD&D is needed in the short to medium term to support the development of different policy instruments that could help reduce future investment risk in deploying industrial CCS.



Contents

The workshop will consist of presentations and a discussion forum. Presentations will be given by invited speakers from industry, different government agencies, leading national and international organizations, research institutes and academia.

The workshop shall include the following topics:

- CCS technologies applied to the oil refining, chemical and petrochemical, and pulp and paper industries – presenting the on-going developments; and what are the advantages and challenges to these applications.
- Integration, system and infrastructure aspects of deploying CCS in the different process industries.
- Understanding of the different parameters for techno-economic evaluation of CO₂ capture deployment in these industries.
- Case/feasibility studies in
 - Oil Refining Industry
 - Chemical/Petrochemical Industries
 - Pulp and Paper Industry

The list of speakers includes (*marks members of Organising Committee)

- Antti Arasto*, VTT Technical Research Centre of Finland
- Thore Berntsson*, Chalmers University of Technology, Sweden
- Bruce deBolt, DOW Chemicals, US
- Hans Jörg Fell, Gassnova, Norway
- John Gale, IEA Greenhouse Gas R&D Programme (IEAGHG)
- Lily Gray*, Shell, The Netherlands
- Filip Johnsson*, Chalmers University of Technology, Sweden
- Clemente Pedro Nunes*, Instituto Superior Técnico (IST), Portugal
- Guy Parker, CEFIC, European Chemistry Industry Council
- Nicolas Perrin, Air Liquide
- Filomena Pinto*, National Laboratory for Energy and Geology (LNEG), Portugal
- Alan Reid, Concawe, EU
- Nils Rökke*, SINTEF, Norway
- Stanley Santos*, IEA Greenhouse Gas R&D Programme (IEAGHG)
- Helena Sjögren, Swedish Forest Industries Federation, Sweden
- Department of Energy (speaker to be confirmed), US
- Department of Energy and Climate Change (speakers to be confirmed), UK

Time, venue and fee

Time: March 10-11, 2015

Venue: Largo Jean-Monnet 1, 10^a, PT-1269-068 Lisbon

Workshop fee: 150 Euros. The fee includes coffee, refreshments and dinner.

Registration

Registration is made online via the following link:

https://docs.google.com/forms/d/1fr-U1mNvs3vnnvCW7AOmsPx-xw_iSOwUsAaiZGtFKxFo/viewform

Contacts

Thore Berntsson
Chair, IETS Executive Committee
thore.berntsson@chalmers.se
phone: +46 (0) 70 308 80 09

Stanley Santos
Project Manager IEAGHG, Capture & Integrated Systems:
stanley.santos@ieaghg.org
phone: +44 (0) 1242 80 29 57