



GHGT *Times* 10

Daily bulletin of the 10th Conference on Greenhouse Gas Control Technologies, Amsterdam RAI, 19-23 September 2010. Also available at www.ghgt.info

Today's highlight

The morning plenary sessions with welcome addresses and keynotes will set the scene for three-and-a-half day of scientific discussions.

Monday

20 September 2010

GHGT-10: Ready to roll



Yesterday, the Music Building at 't IJ in Amsterdam was the stage for the opening reception of the 10th International Conference on Greenhouse Gas Control Technologies. Of course renewed meetings with colleagues were the main event here. These brief encounters were accompanied by

drinks and snacks, opening remarks by John Gale (IEAGHG) and Chris Hendriks (chairman Organising Committee) and especially some tantalising music from de Kopmannen (The Leaders).

Arguments pro and con listed

This afternoon the English version of the Argument Map on CCS will be presented to the press. The map – which resembles a metro map – shows all pros and cons on CCS in the Netherlands.

“Now all arguments are known, the next step is to weigh the arguments,” says Sander van Egmond, communication manager of the Dutch national research program on CCS, CATO. On the Dutch CCS conference that CATO organised just before this summer, the arguments were literally weighed. The audience placed little sandbags in classical balances to support their argument against others.

Van Egmond: “We are now working on a web-based version of this voting mechanism. Visitors should vote on their most important arguments in favour and contra CCS. So a real CCS advocate can become aware of the most important arguments against CCS as well – which he should. Our goal with this map is to support establishing an open debate on CCS.”



Close-up of CCS Argument Map CCS (Argumentenfabriek)

Also during the GHGT-10 conference, lots of these arguments will be discussed. According to Van Egmond, the debate will not only concern the importance of arguments themselves, but also their ‘storage lifetime’ and their scope. He gives some examples: “An important question is whether and if an argument like ‘CCS costs 10 to 40% extra energy’ will become outdated for post-combustion capture at a coal fired power station. But for other cases, this is no relevant argument. Capturing CO₂ at projects like Sleipner and K12B are more or less free of energy losses, as the CO₂ had to be separated from the produced natural gas anyway, to meet the right specifications. So the scope is relevant. There is not one CCS, but there are dozens of different CCS chains.”

The map can be downloaded from the CATO website (www.co2-cato.nl). Participants of the conference can pick up their own copy at the Holland CCS Stand on the ground floor.

‘I always save the best I have for this conference series’

Retrospective on 18 years of GHGT

When Howard Herzog from the Massachusetts Institute of Technology attended the first conference on carbon capture and storage in Amsterdam 1992, he could not have expected that it was the first of a series that would grow to the present size.

“At the time, climate change was already an issue, but nobody knew it would grow to be such a major topic so quickly. Although climate change policies are still more a matter of talking than of concrete actions.”

Herzog was one of the few attendees today that experienced all previous GHGT conferences. He saw the series of conferences on Greenhouse Gas Control Technologies growing from some 250 people in 1992 to over 1500 today. “The first ones were quite academic and theoretical. CCS has grown much bigger, with pilots and demos coming up. We now have a great deal of knowledge to build upon. But the work ahead is still larger than we have achieved so far.”

Looking back on 9 previous conferences, Herzog doesn't want to pick out one that was special to him, even not the two he organised himself (Boston 1996 and Washington 2008). “All of them were hard scientific work, and meanwhile socializing at the conference dinner and other occasions. I have good memories for those social events.”

“The GHGT has become the central event for the CCS community,” Howard Herzog says. “I save my best presentations and posters for this two-yearly occasion. But to me, the biggest challenge for the CCS community lies beyond this conference. How can we keep momentum while climate change policies are so slow or even slowing down? Not everybody is as pessimistic as I am, but I think we should be prepared to be in this for a long haul.”

Name change

The first three academic conferences on the storage of carbon were still called ICCDR: International Conference on Carbon Dioxide Removal. When the newly started IEA Greenhouse Gas Programme started similar initiatives, Howard Herzog was one of the people that advocated the inte-



“The work ahead is still larger than we have achieved so far”

gration after the third conference in Boston (1996). “We had to make compromises on both sides, but there was definitely a common ground.” And why is the largest CCS conference not called International CCS Conference, but GHGT-10? “That is a long story. But anyway, CCS was not a known term at the time.”



Chair Chris Hendriks:

“Hold on to science”

Carbon capture and storage (CCS) is entering a new stage. ‘From research to reality’ is the theme of the 10th Conference on Greenhouse Gas Control Technologies that starts today. CCS is attracting new stakeholders. “Our conference holds on to the science. No propaganda or advertising CCS, but discussing pros and cons in a professional, scientific way. That is our task,” says Chris Hendriks, chairman of the Organising Committee.

During the three years of preparation of the GHGT-10, Chris Hendriks had to tell the story many times. “CCS is on the edge of being applied in practice, so new interests occur. Large demos in Europe and elsewhere represent billions of Euros. But whoever came to us with an offer of an interesting presentation, we forwarded them to the abstract procedure. Just to be sure of the scientific contents.”

“No propaganda, but scientific discussions about pros and cons of CCS”

Over 1000 abstracts had to be judged by some 60 experts. The Programme Committee finally selected 250 oral presentations, almost 700 posters. “Also the industry and our sponsors acknowledge that this procedure will guarantee a high quality level and debate on CCS,” says the Dutchman. “That is in their interest as well. GHGT-10 is a scientific conference. Science is our backbone and our reason for existence. I was always clear on that, and that transparency was always appreciated.”

1992: first of the series

Twenty years ago, Chris Hendriks (now Ecofys), Wim Turkenburg (Utrecht University) and some others were the founders of the GHGT conference series. The first one was held in 1992, also in Amsterdam, attended by 260

people. After that, the conference travelled to Kyoto (Japan), Boston (USA), Interlaken (Switzerland), Cairns (Australia), Kyoto (Japan), Vancouver (Canada), Trondheim (Norway), and Washington (USA), to return to Amsterdam again today. And with CCS itself, the conference gained importance.

Hendriks: “CCS needed a long build-up to where it is now. When I started my own scientific CCS activities, I did not suspect that CCS would be implemented on a large scale. I regarded carbon capture as a back-stop technology, forcing industry to take the cheaper CO₂ emission reduction measures first. But now I think we will probably need CCS to prevent severe climate change consequences. I still regard it as a back-stop technology, in a sense, because in the end we will need other technologies. CCS is only transitional to a sustainable energy supply.”

“It’s not only technology. We will focus on the position of CCS in society and in the energy system”

With the growth towards maturity, the conference’s scheme has not changed substantially. “Science was and still is the core. But of course we pay a lot of attention to today’s position of CCS. It’s not only technology. We will more and more focus on the position of CCS in society and in the energy system. By including

‘Demo community’ launched

Last Friday, the European Commission launched a network for CCS demonstration projects. The network intends to foster knowledge sharing and increase public understanding of the role of CCS in cutting CO₂ emissions.

According to Energy Commissioner Günther Oettinger the network will facilitate co-operation between the project developers of CCS projects and inform the public. “Knowledge sharing will be essential for accelerating the deployment of clean energy technologies in Europe and worldwide.”

All six CCS projects supported by the European Energy Programme for Recovery (EEPR) signed up to the network, thus meeting the condition for receiving EU funding to

disseminate project results. The goal is to create a prominent community of demo projects.

An annual Advisory Forum will review the functioning of the network activities, such as (restricted) websites for sharing of information, events, dialogues and reports. This forum was co-chaired by the European Commission and the European Technology Platform for Zero Emission Fossil Fuel Power Plants (ZEP).

<http://www.ccsnetwork.eu/>



Chris Hendriks yesterday during his opening remarks at the GHGT-10 reception.

more panel discussions than ever, the conference makes these cross-overs.”

Students

Over 1500 people will attend GHGT-10 these days in the Amsterdam RAI. Most of them are scientists from academia and knowledge institutes, but also policy makers, industrial professionals, representatives of environmental NGOs and more than 250 students will participate. “The conference is not intended for the public, but we will discuss public perception of CCS

“One good idea makes a conference a success to a participant”

from a scientific viewpoint. Actual cases like the CO₂ storage project in Barendrecht in the Netherlands and the zero-power plant of FutureGen in the USA will be discussed.”

Exchange of scientific views is key in the conference. “We will have no end declaration or something alike.

Some figures:

1550 attendants, of whom: 250+ students, representatives from NGOs, industry, universities, knowledge institutes, policy makers.
Attendants by country: USA: 270, The Netherlands 193, Norway 155, United Kingdom 137, France 124, Germany 120, Japan 104, Australia 69, Canada 64, South Korea 33, China 21
And many others from all parts in the world.

Apart from some press coverage, I don’t expect the outside world will notice much. But for the scientific community, this conference is of great importance. My colleague Wim Turkenburg always says: If you return from a conference with one good idea, the conference was a success. I agree. The conference is the place for networking, discussion and new combinations of knowledge. People can do that on their own special field, but will also learn from other fields, on a more aggregate level.”

“For us, the organising committee, the conference will be a success

Zhenqi Niu, Student Tsinghua University, China:

These days, China already has many projects running. My most important goal is to learn about CCS scientific developments from all these people from different countries in the world.

Jaleh Samadi, Ecole des Mines, Paris, France:



The GHGT-10 is one of the very few occasions where I can discuss my subject of research – risk assessment – with many colleagues at a time.

Nick Otter, president Global CCS Institute, Australia:

Nowadays, there is some 30 billion dollar put on the table by governments. To really speed up CCS developments we need to do the first major projects in the next two or three years. This conference is a necessary step in this.

Maurice Hanegraaf, Rotterdam Climate Initiative:

This conference gives me the opportunity to meet seniors from industry abroad that are normally more difficult to get a hold on. To meet our ambitions in the Rotterdam Harbour, we need these contacts as well.

if CCS will be acknowledged as a technology with its own assets, its pros and cons. I don’t pretend that the conference will be a major breakthrough. But if I see a lot of happy faces and inspiration, I will be satisfied.”

Climate neutral

The 10th Conference on Greenhouse Control Technologies will take measures to compensate all greenhouse gas emissions that originate from the conference itself and from the people’s stay in Amsterdam. Transport will not be covered, because that is regarded of each traveler’s own responsibility. “We would have liked a CCS project for compensation, but we did not succeed. The organising committee sees to it that the projects will be really additional and sustainable.”

Disclaimer

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