

**TECHNOLOGY PLATFORM FOR ZERO EMISSION FOSSIL FUEL
POWER PLANTS**

**DRAFT MINUTES OF THE 14TH MEETING OF THE ADVISORY
COUNCIL**

BRUSSELS, 28TH FEBRUARY 2008

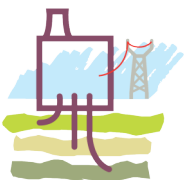




Z E P Zero Emission Fossil Fuel Power Plants

meeting name	surname	invitation accepted
AC14	Appert	N, replaced by Rojey,
AC14	Dubinski	N, replaced by Gajda
AC14	Fischer	N, replaced by Eckstein
AC14	Garosi	N
AC14	Lacour-Gayet	N
AC14	Lambertz	N, replaced by Heithoff
AC14	Mosbech	N
AC14	Soothill	N, replaced by Otter
AC14	Sweeney	N, replaced by Vriesman
AC14	Thorvik	N,
AC14	Barbucci	Y, AC
AC14	Christensen	Y, AC
AC14	De Marliave	Y, AC
AC14	Eckstein	Y, AC, replaces Fischer
AC14	Farley	Y, AC
AC14	Gajda	Y, AC, replaces Dubinski
AC14	Gye	Y, AC
AC14	Häge	Y, AC
AC14	Hauge	Y, AC
AC14	Heithoff	Y, AC, replaces Lambertz
AC14	Hill	Y, AC
AC14	Kather	Y, AC
AC14	Lampenius	Y, AC
AC14	Ludden	Y, AC
AC14	Otter	Y, AC, replaces Soothill
AC14	Rojey	Y, AC, replaces Appert
AC14	Suess	Y, AC
AC14	van Breda Vriesman	Y, AC, replaces Sweeney
AC14	Brockett	Y, EC, DG ENV
AC14	De Santi	Y, EC, JRC-IES
AC14	Kougionas	Y, EC, DG RTD
AC14	Liberali	Y, EC, DG RTD
AC14	Panek	Y, EC, DG TREN
AC14	Raldow	Y, EC, DG RTD
AC14	Schneider	Y, EC, DG TREN
AC14	Troppmann	Y, EC, DG RTD
AC14	Bergmann	Y
AC14	Frisvold	Y
AC14	Goldschmidt	Y
AC14	Martinez Jubitero	Y
AC14	Newnham	Y
AC14	st. Leger	Y
AC14	Stegmann	Y
AC14	Willnow	Y
AC14	Alonso Martinez	Y, observer, Union Fenosa
AC14	Clerens	Y, observer EPPSA
AC14	Densley	Y, observer scottish Southern





meeting name	surname	invitation accepted
AC14	Johnston	Y, observer
AC14	Kremer	Y, observer, EUTurbines
AC14	Kumar	Y, observer, WWF
AC14	Laciok	Y, observer, CEZ, gives presentation
AC14	Lubbers	Y, observer, Rott. climate in., gives presentation
AC14	Lysen	Y, observer, University of Utrecht
AC14	Mabey	Y, observer, E3G
AC14	Nielsen	Y, observer, Dong Energy
AC14	Steffensen	Y, observer, Dong Energy
AC14	Szynol	Y, observer PKE
AC14	Zelinger	Y, observer, EUTurbines
AC14	Stevens	Y, SECR
AC14	van der Lande	Y, SECR

***** Government Group attendance list.....they were there*****

1 Opening

1.1. Introduction

The Chairman opened the meeting and welcomed everyone. He welcomed especially the members of the Government Group and representatives of the European Commission Raffaele Liberali, Wiktor Raldow, Jan Panek, Scott Brockett, Giovanni de Santi, he in particular thanked Thomas Schneider, who will leave the EC, for his good cooperation with ZEP. He also welcomed the special guests Ruud Lubbers from Rotterdam Port Initiative, Ales Laciok from CEZ, the representatives of PKE, Dong Energy and Scottish Southern.

The Chairman mentioned the promising results of the UN Climate Conference in Bali in December 2007, he appreciated the release of the EC Energy Package in January 2008 and addressed the strong CCS commitment of industry given to Commissioner Piebalgs 21st February 2008.

Brian Morris, chair of the Government Group welcomed everyone, stating the positive and good progress of ETP ZEP in the last years. He announced this is his last meeting, because he will step down as a chair of the Government Group.

1.2. Adoption of Agenda Morning Session

The proposed agenda was accepted without changes, except for the sequence of agenda points.

1.3. Actions since last AC-meeting, milestones ahead

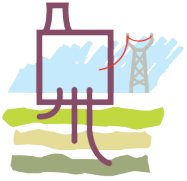
Robert van der Lande listed the decisions taken at the last AC-meeting, the actions taken and a list of upcoming events in 2008¹.

1.4. Feedback from CEO-meeting Piebalgs

The Chairman gave feedback on the CEO-meeting with Commissioner Piebalgs. The meeting consisted of a pre-lunch ZEP meeting, at which the letter of industrial commitment² and the ZEP

¹ ZEP_AC#14_agenda.ppt





recommendations on implementation and funding³ were presented, followed by a lunch with the CEO's.

Wiktor Raldow and Jan Panek commented that the atmosphere of the meeting was very open and that Commissioner Piebalgs reacted positively on the letter.

2 EC energy package: status, positioning & timing

2.1. Introduction (Wiktor Raldow)

Wiktor Raldow gave a presentation⁴ on the SET-plan. In his presentation he said among other things that

- he considers ETP-ZEP as one of the most successful TPs and complimented ETP-ZEP on its work. He remarked that there are synergies to be achieved between the TP's and pointed at the European Steel Technology Platform ESTEP with an industry commitment for demo CCS of 300 Mio.€.
- The secretariat for the CCS project network will be tendered in April.

2.2. CCS communication “Supporting early demonstration plants” (Jan Panek)

Jan Panek gave a presentation⁵ on the implementation of the communication “supporting early demonstration etc.”.. In doing this, he pointed out that funding of demo's must be provided by both industry and public authorities. Since the EU does not have a budget for this at present and in the immediate future, to avoid delay initial public funding must come from individual member states. He also remarked that TREN intends to consult ETP-ZEP on the ToR for the network secretariat and asked who would be available for that. Later in the discussion Nick Otter replied that the CG would be the appropriate body for this.

As a comment on agenda point 1.4 (CEO-meeting with Piebalgs) he remarked that TREN considers the financial figures mentioned in the letter presented to Piebalgs on 21 February impressive. Commissioner Piebalgs intends to use them at the energy council but would like to be sure that the numbers are solid, and must be sure what the figures represent, particularly because, at the CEO-lunch, he could not get a confirmation of company specific figures from all CEO's. The secretariat through Robert van der Lande will contact Jan Panek regarding this and will send the slide with the PwC – explanation of the figures to the attendees of the meeting.

Jan Panek considers that 2007 was the year in which CCS first became recognised as a legitimate technological solution. This year we should aim to get CCS the appreciation it deserves.

2.3. CCS storage directive (Scott Brockett)

Scott Brockett presented⁶ the enabling legal framework for CCS.

Discussion

The following comments/questions were made after the EC presentations:

² ZEP_AC#14_28Feb08_agendapoint 1.4_CEO-meeting letter of commitment industry.pdf

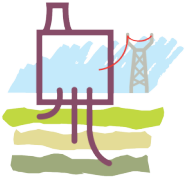
³ ZEP_AC#14_28Feb08_agendapoint 3.2_zeprecom.pdf

⁴ ZEP_AC#14_28Feb08_agendapoint 2.1_Wiktor Raldow.ppt

⁵ ZEP_AC#14_28Feb08_agendapoint 2.2 presentation Panek CCS Communication January 2008 FINAL.ppt

⁶ ZEP_AC#14_28Feb08_agendapoint 2.3_scott brockett





- Investment banks/ financial community do not understand the viability of CCS in the future, and do not have a full understanding of the costs involved.
- How can the European and Global initiatives become better integrated?
- Nick Mabey noted that the term "CCS-ready" is not very well defined and that that eventually might be a barrier to the implementation of CCS. He also asked the commission, in view of the importance of large emerging economies, how they intend to mobilize these emerging economies when it comes to implementation of CCS. Raffaele Liberali responded by saying that he is going to China the next week to talk to the Chinese regarding the second phase of the implementation of the Memorandum of understanding (MoU). He asked the ZEP-companies for ideas or reflections that Raffaele Liberali could use in his discussions with the Chinese. Suess replied by saying that Siemens has several projects going in China and that the focus of the Chinese is first and foremost on efficiency. For CCS the key element is the cost of CO₂.

3 Strategic actions for 2008/2009

3.1. EU CCS Demonstration Network Action and relationship with ZEP Platform

Nick Otter gave an introduction in which he particularly referred to the financing gap between industry commitment and the high incremental cost of CCS demo projects and to the new network structure and secretariat that the commission will set up in the forthcoming months. He asked the commission whether it still sees a clear need for ETP-ZEP.

The commission replied by saying that

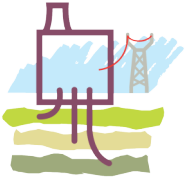
- ETP-ZEP is a valuable provider of advice to the commission and represents the stakeholders.
- Financial support from the commission for the secretariat of ETP-ZEP will be part of a common approach for platform secretariats that the commission is developing at the moment. Several other platforms also have the same issues.
- It sees ETP-ZEP as complementary to the network secretariat. The network secretariat is expected to focus on concrete implementation: to get the demo's off the ground a.s.a.p. The ETP-ZEP is expected to focus on the much broader context.

Although appreciation was given for the speed with which the commission has dealt with the CCS-dossier, much of the debate that followed was about the so called financing gap for CCS demo projects. Several people concluded that industry has now shown its preparedness to carry its share of the funding and expect the EU to likewise provide financial support for the flagship program. Concerns were expressed about the apparent lack of a sense of urgency from the side of the commission. All the third world countries will go on without CCS if Europe waits that long with setting the example. Furthermore, the delay we have incurred so far has already led to an additional wedge (of 1Gt of CO₂) that needs to be addressed. A further delay until 2013, when additional money for CCS demos from the ETS auctioning process might be available in the member states, will undoubtedly lead to another wedge and will be detrimental.

The commission replied by

- emphasizing that the EC at the moment does not have the budget for supporting the demonstration projects but that the financial perspective of the EC is currently being reviewed which may in time lead to availability of funding.
- noting that the energy industry itself should step up its spending on new technologies. The energy industry invests only 1,5% of its turnover in new technologies. The car industry spends 4,5%.
- ETP ZEP should also look at investments by other platforms. For example the steel industry also deals with reduction of CO₂ emissions and will invest in new technologies





with lower CO₂ emissions. ZEP should take this into account and look for cooperation and synergies.

- Saying that, rather than waiting for public co-funding, industry should invest now in this new technology out of 'self preservation' as if companies do not invest now, they may be overtaken by overseas industries. In response it was remarked that the EC expects the industry to invest in an immature and very uncertain market that is created by the EC itself, and that the EC cannot sit on the fence, as a commentator, in such a situation. Additionally, for CCS there is not yet a market pull. If the EC does not take an active part in facilitating this, the industry is likely not to make the necessary movement required to have an aggressive European Action that is needed here in order to ensure that CCS does indeed contribute to meeting the now accepted CO₂ reduction targets of 2020 and beyond to 2050.

Nick Otter summarized the discussion. He concluded that the EC does give strong support to the continuation of ETP-ZEP and that the Platform needs now to identify priorities for the forthcoming year and beyond, building upon the position taken by the commission so far. It is clear that the commission has taken notice of the views of the Platform. One critical aspect will now be the role of the member states. He asks the members of the GG to promote CCS at member state level and asks the GG-members what the AC of ETP-ZEP and the Platform as a whole can do to help in each of the member states. This needs to be done in conjunction with the European Parliament and the commission as the current energy proposals are taken forward.

Lunch

1 Introduction Continued

1.0. Approval agenda (afternoon session)

The proposed agenda was accepted without changes.

1.1. Approval Minutes AC#13

The final version of the minutes should include the final dates for the next AC-meetings.

5 Project Presentations and Updates

5.1 Rotterdam Climate Initiative (Lubbers)

Ruud Lubbers gave a presentation⁷ about the Rotterdam Climate Initiative. The Rotterdam Climate Initiative is going to use present pipelines to transport captured CO₂ from the Industries in the Harbour, to the gas houses and old gas fields in Barendrecht and offshore. This system can be expanded to other countries, like Antwerpen Ruhr area. A business case of the Rotterdam initiative shall be published in about 6 weeks. The Dutch government will invest in Carbon Capture, it now being accepted as one of the three key strategic elements of meeting their CO₂ reduction targets.

Lubbers suggested securing the ETS-revenues. It is then up to the member states where the governments can pull forward the funding of CCS-projects. De Marliave and others later state that this is an interesting approach.

⁷ ZEP_AC#14_28Feb08_agendapoint 5.1_Presentation Lubbers





5.2 CEZ actions in the Czech Republic (Laciok)

Ales Laciok gives a presentation⁸ of CEZ being an Energy producer in several Eastern European countries. It has selected two potential post-combustion CCS projects. The objective is to get the plants operational by 2014. They are willing to finance or co-finance CCS initiatives, not only demos. Additional funds shall result from sales of emission allowances. CEZ is supported by the Czech Republic Government and would like to become a member of the AC.

3 Strategic actions for 2008/2009 continued

After an introduction by Nick Otter the discussion focuses on the current 'landscape', what it should look like in the future and how the various initiatives should interact.

Regarding the current "landscape" many people are afraid that there will be overlap between ETP-ZEP and the new European Industrial Initiative on CCS and the new project network secretariat. As yet there is little clarity between the aims and proposed actions of the various initiatives.

Regarding the future landscape, before lunch, the EC gave a strong positive signal for continuity of the ETP ZEP. The difference between ETP ZEP, the network secretariat and the EII needs however to be made clear. The definition of the ToR for the new network will be important as will the formulization of the CCS-EII. He asks the AC to give the CG the mandate for giving the EC feed back on the ToR and on the new EII organization in general. This is agreed.

- Mike Farley supports the approach but would like to give guidelines: the network secretariat should perhaps take over the responsibility of the flagship program, bearing in mind that the network of projects could well lead to the ultimate establishment of such a program. Also ETP-ZEP should be defined as the advisory body.
- Gijs Vriesman notes that the network secretariat leaves two important issues aside that ETP-ZEP should focus on:
 - o Funding
 - o Technology (R&D).He proposes that ETP-ZEP starts convincing the member states regarding the need of a common financing mechanism.

David Gye summarizes where we now are:

- Despite our efforts the commission will not provide any significant funding to the flagship program at this stage but recommends to turn to the member states
- The timescale and size of the flagship program are not financially supported by the commission.

He concludes that it is now time to re-assess our objectives and strategy

Mike Farley: the governments could be obliged to spend 20% of the revenues on low carbon technologies.

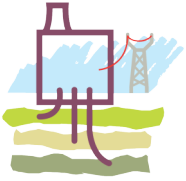
Gijs Vriesman: Given that the funding could come from the auction revenues, the CG should work on the following questions:

- what will be the financing proposal, who will work on this and how will the ZEP reach an agreement?
- what technology will be applied and how many demo's will be in the program and for what reason? Who will do this work and how will the AC align on this?
- how do we select the member states and how do we engage with the member states with these new aligned proposals?

Nick Otter summarizes the discussion. The AC tasks the CG to communicate these ideas regarding financing to the EC so that they can be part of the debate on the EC communication on financing.

⁸ Ask Laciok for presentation





ETP-ZEP should actively engage with the member states and ask how to help them. Gardiner Hill recommends the development of an amended strategy on funding issues.

Decisions

- D14.1 ETP-ZEP will emphasize in its communications that a delay in the implementation of CCS as a result of the “financing gap” is detrimental to the achievement of the CO2 reduction targets.
- D14.2 ETP-ZEP will investigate the commonalities with other platforms regarding CO2 reduction and will take that into account in its actions.
- D14.3 ETP-ZEP concludes that the EC gives strong support to the continuation of the platform after the end of 2008.
- D14.4 The AC gives the CG the mandate to provide feed back to the EC on the ToR for the envisaged network secretariat.
- D14.5 The AC tasks the CG to revise the strategy on the flagship programme and its funding. Specific questions to be addressed:
- What will be the financing proposal, who will work on this, how will ETP-ZEP reach an agreement?
 - What technology will be applied, how many demo's will be in the programme and for what reason? Who will do this work and how will the AC align on this?
 - How do we select member states to be approached and how do we engage with them.

Actions

- A 14.1 The draft of Q&A paper for the Piebalgs meeting will be finalised and distributed.
- A 14.2 A sheet with key numbers of PwC research will be distributed.

4 ZEP Platform Administration and Organisation

4.1 Process for review of AC Membership and nomination Procedure

Kurt Haeghe explains the procedures for AC members. He informs that he will resign as chairman in May 2008 and that the new chair should come from the AC and be elected by them. This should be considered at the forthcoming AC in May 2008.

The following changes were proposed:

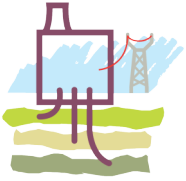
- Jennifer Morgan has proposed Nick Mabey, chief executive of E3G
- François Jackow has proposed Martha Heitzmann of Air Liquide
- Santiago Sabugal Garcia has proposed Jordi Martinez Jubitero of Endesa
- Kurt Haeghe has proposed Reinhardt Hassa, member of the board of Vattenfall Europe as new member of the AC after his resignation
- Additionally several organisations are interested among which: Union Fenosa, CEZ, Dong Energy

The terms of reference of the AC state that there is a maximum of 40 members of the AC (currently 22). The coordination group proposes that the AC nominates a committee that screens candidates and proposes them to the AC. The AC is asked to decide on this proposal and on the members of this committee. Proposed candidates for this committee are:

- Kurt Haeghe;
- Olivier Appert;
- Vassilios Kougiouas (representing the EC);
- Secretariaat of ETP-ZEP: Robert van der Lande.

Frederick Hauge suggested inviting Ruud Lubbers for the AC.





Decision

D14.6 AC accepts procedure and nomination committee for new AC-members.

4.2 Chair and Vice-chair position

Kurt Haege explains the procedures for Chair and Vice-Chair. One of the Vice-Chairpersons should normally become Chairperson in the second term, however that is not a rule. The vice-chairs are asked to take the decision whether they want to be a candidate for the Chairperson of the ZEP Advisory Council and whether they want to continue as Vice-Chair, the written statement shall be addressed to the secretariat or the chairman till end of March 2008.

After the resignation of Kurt Haege, it was noted that Johannes Lambertz from RWE is ready to become vice-chair and member of the executive committee as representative of the generators.

Decision

D14.7 AC accepts procedure for appointing chair and vice chairs.March 2008.

4.3 Organisational matters taskforces

The coordination group advises the AC to nominate Klaus Willnow as co-chair of the taskforce Public Communications.

Decision

D 14.9 Klaus Willnow is accepted as co-chair for taskforce Public Communications.

Two out of three co chairs of the taskforce technology are from Vattenfall, after Niels Peter Christensen has moved his job. The taskforce technology asks to keep both as co-chair. This is not agreed. The AC (all 13, no against) decides that for an interim period, both Stromberg and Christensen will be acting chair, and that a new person with the right skills should be sought. If this proves to be not possible then the situation should be reviewed.

Decision

D 14.10 Lars Stromberg and Niels Peter Christensen (Vattenfall) are for the moment acting co chairs of taskforce Technology. A solution will be sought to replace 1 by a representative of different company.

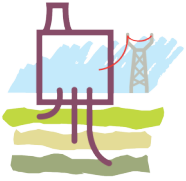
Robert van der Lande gave an update on the status for recruiting a full time public communications expert. The description is sent out. The expert will be partly based in The Hague and in Brussels.

4.4 Secretarial Function post-end 2008

At the start of ETP-ZEP the secretariat, staffed by PwC and Triarii, received funding from the EC (50 %) and industry (50 %). The funding from the EC was given for the period until the end of November 2008. Funding from the EC for the period after this date is not yet certain. The funding from industry is received by invoicing the industry at the beginning of each year. The arrangement after November 2008 needs to be agreed upon. The following questions are asked to the AC:

- Does the AC agree that it needs a secretariat for the period after the end of November?
- Who will pay for the secretariat?
- Does it want to continue with PWC/Triarii?
- Does it want the current secretariat to come forward with a proposal for activities and budget at the next AC-meeting for the period after November 2008?
- Are there specific guidelines for this plan?





It was decided that the Platform is to continue and that therefore the platform needs a secretariat. The current secretariat should come forward with a plan and a budget for the next 3 years. With this proposal the way in which it should be supported will be addressed.

In parallel the CG will evaluate the current secretariat.

Decisions

D14.11 ETP-ZEP will hire a secretariat for the period after 2008.

D14.12 The present secretariat will make a proposal for ETP-ZEP and its secretariat for the next 3 years. Part of plan will be an annual GA.

D14.13 The CG will evaluate the present secretariat.

4.5 Organisation General Assembly 2008

In 2006 and 2007 a General Assembly was organised at which ETP-ZEP presented its progress. Both events did cost approximately 70 k€ each and fully consumed the budget of 140 k€ that was allocated for the general assemblies. If in 2008 a General Assembly is to be held a budget reallocation is needed. Robert van der Lande shows the budgets for video and outsourcing are not used. The Advisory council is asked:

- Does it want to have a General Assembly organised in 2008?
- Does it agree with the proposed budget changes?

Decision

D14.14 AC agrees to a GA in 2008 and to the budget changes necessary for this. Tentative date: 2nd week October.

6 Miscellaneous

The dates and places for the meetings of the AC need to be set. The following dates are proposed:

- Wednesday 21st May 2008 / Venue: Berlin
- Wednesday 10th September 2008 / Venue: Brussels
- Wednesday 26th November 2008 / Venue: Brussels

Decision

D14.15 Next AC-meeting: 21st May 2008 in Berlin.

7 Close of meeting

The Chairman thanked the AC members for the active discussion and closed the meeting at 16:28.

DECISION REGISTER AC 28th February 2008

- D14.1 ETP-ZEP will emphasize in its communications that a delay in the implementation of CCS as a result of the “financing gap” is detrimental to the achievement of the CO₂ reduction targets.
- D14.2 ETP-ZEP will investigate the commonalities with other platforms regarding CO₂ reduction and will take that into account in its actions.
- D14.3 ETP-ZEP concludes that the EC gives strong support to the continuation of the platform after the end of 2008.
- D14.4 The AC gives the CG the mandate to provide feed back to the EC on the ToR for the envisaged network secretariat.





- D14.5 The AC tasks the CG to revise the strategy on the flagship programme and its funding. Specific questions to be addressed:
- What will be the financing proposal, who will work on this, how will ETP-ZEP reach an agreement?
 - What technology will be applied, how many demo's will be in the programme and for what reason? Who will do this work and how will the AC align on this?
 - How do we select member states to be approached and how do we engage with them?
- D14.6 AC accepts procedure and nomination committee for new AC-members.
- D14.7 AC accepts procedure for appointing chair and vice chairs. March 2008.
- D 14.9 Klaus Willnow is accepted as co-chair for taskforce Public Communications.
- D 14.10 Lars Stromberg and Niels Peter Christensen (Vattenfall) are for the moment acting co-chairs of taskforce Technology. A solution will be sought to replace 1 by a chair from a different company.
- D14.11 ETP-ZEP will hire a secretariat for the period after 2008.
- D14.12 The present secretariat will make a proposal for ETP-ZEP and its secretariat for the next 3 years. Part of plan will be an annual GA.
- D14.13 The CG will evaluate the present secretariat.
- D14.14 AC agrees to a GA in 2008 and to the budget changes necessary for this. Tentative date: 2nd week October.
- D14.15 Next AC-meeting: 21st May 2008 in Berlin.

ACTION REGISTER AC 28th February 2008

- A 14.1 The draft of Q&A paper for the Piebalgs meeting will be finalised and distributed.
- A 14.2 A sheet with key numbers of PwC research will be distributed.
- A 14.3 Investigation of the commonalities with other platforms (see Decision 14.2).
- A 14.4 Revision on the flagship programme and its funding (see Decision 14.5).

