

## **ZEP Advisory Council Meeting #23**

## Minutes of meeting

Date and time: 10 June 2010, 10.30 – 16.40 hrs.

Venue: Centre Borschette, Rue Froissart 36, Brussels

Status: draft

The list of attendees is attached as annex 1.

## 1 Opening

## 1.1 Opening statement

In his opening statement chairman apologized for not having been able to attend the previous meeting in Berlin.:

He expressed his view that ZEP should not sit back and relax and that ZEP should "put the pedal to the metal". He pointed at the importance of reflecting on ZEP's future. In the forthcoming months the individual members of the AC will be consulted on their view. Key questions to be addressed:

- What is on your agenda for ZEP?
- How can ZEP optimize its efforts?
- How can ZEP be best represented in CCS EII and CCS project network/Advisory Forum?

It was noted that the final investment decision for commercial implementation of CCS at the Mongstad refinery has been postponed. ZEP will invite Tone Skogen or a representative of Mongstad to explain the decision and its background.

#### 1.2 Minutes AC22 and draft agenda AC23

The AC accepted the draft minutes of AC#22 of 10 March 2010

The AC also accepted the proposed agenda for AC#23. Under agenda item 10 (Miscellaneous) attention will be given to the impact of the oil spill in the gulf of Mexico on CCS.



#### 1.3 Review decisions AC#22

Robert van der Lande reviewed the decisions taken at AC#22 and their follow up. The decision to invite the IEA to the AC meeting will be effectuated for AC#24.

#### 1.4 Organisational changes

Chairman announced that Alfons Kather, Harry Lampenius and Trude Sundset have informed ZEP that they step back as AC member. Three more AC members are expected to take that step before the next AC meeting. He invited suited candidates to express their interest with a letter to chairman/secretariat before 16 August. Categories of interest to ZEP are NGO's, Coal sector, R&D, Financing experts, Geologists and Communication experts

He asked for, and received unanimous support for, Damian Müller of Vattenfall as co-chair of the taskforce Public Communications.

He announced that for the high level expert group on enabling technologies group the EC invited two Members with a ZEP affiliation: Lars Stromberg (proposed by Eurelectric) and Gerald Schotman.

## 2 EU CCS developments

#### 2.1 NER300

Heinz Bergmann gave his presentation. At the last slide he proposes that ZEP:

- Points at the shortcomings of the selection process when appropriate
- Sends a draft letter to the EC to point at the need for committing to proposals that they have submitted, in order to avoid withdrawal at a late stage and resulting damage to the CCS demonstration programme

Regarding the proposed letter to the EC it was decided that the draft letter as included in the preread be rephrased (positive tone) and sent out.

#### **Project network** 2.2

Simon Bennett presented the proposal of DG ENER for an advisory forum (AF) of the project network and asked ZEP for approval. The following comments/guestions were raised:

- The project network should not be limited to the CCS EEPR projects but should include a wider range of CCS projects, e.g.:
  - projects of all applicants for NER300 (not only the selected projects)
  - projects that are already injecting CO2
- For the member state participation in the AF the ZEP government group will propose a membership
- attention must be given to existing organizations such as GCCSI and the CCS EII team. Bennett replied that GCCSI will be an observer in the advisory forum.



- the size of the AF should be as limited as possible. DG ENER aims for 30 people: 15 from the
  network, member states and the EC and 15 from stakeholders such as ZEP. Bennett remarks that
  membership of the AF is flexible, to be reviewed after the first meetings. Substitutes for ZEP
  representatives will be accepted.
- Sweeney would like the project network to adopt the ZEP knowledge sharing protocol as the standard. He also pointed out that, as a consequence of limited funding available, the European project network might be smaller than needed and that it will be important to involve non-European CCS projects in the knowledge sharing. He therefore proposed that the EC and the AF promote the ZEP knowledge sharing framework. Bennett replied that the principles of the ZEP framework are the basis of the knowledge sharing of the project network.

The ZEP AC accepted the proposal of DG ENER for the project network advisory forum.

## 3 Roadmap 2050

Philippe Paelinck presented his view on recently published roadmaps for decarbonisation of the energy supply. The EC is also in the process of developing its own set of roadmaps (energy, transport, natural resources) that will probably be issued in spring 2011. His key recommendations towards the EC are:

- Build an overarching 2050 decarbonisation scenario model for energy
- Objective should be: EU decarbonised power at the lowest cost while maintaining reliability
- Prepare a 10 year power decarbonisation rolling forecast, on a regional/Member State basis
- Propose EU + regionally modelised decarbonisation roadmaps with key short-term and mid-term milestones
- Install a EU/MS decarbonisation revision cycle taking into account technology progress
- Include all the identified technologies of the SET Plan, at their true decarbonised cost of electricity

The presentation was much appreciated. The discussion that followed is summarized as follows:

- There is a widespread consensus that ZEP, in its capacity of advisor, should assess the validity and robustness of such roadmaps
- Roadmaps are powerful communication tools that ZEP should use in the discussion about the post 2020 energy policy
- A problem of roadmaps is that they are often not comparable because of the use of different
  underlying assumptions. ZEP should emphasize the importance of such methodological aspects.
   There is a general consensus that ZEP should not build its own roadmap but that ZEP should be the
  custodian of the place of CCS in energy roadmaps. It should set the standards.
- There is a criticism towards the Primes model for roadmapping that will be used for the EU roadmap. Its results are apparently not recognized by the member states and comments of member states were not taken into consideration.
- CCSA could well use objective advice of ZEP on roadmaps.
- The EC roadmaps are still in an early stage. A consultation will open in July, the roadmap itself could be released in spring 2011.

It was decided that ZEP will develop and publish its set of reference criteria (a "standard") for roadmaps, will advise the EC on the CCS position in relevant published roadmaps and use it for the public debate. While



this is a substantial piece of work TFDI needs to think about resources required and make a proposal (to the ACEC).

#### 4 CCS EII

At the start of this agenda item:

- Kai emphasizes that the CCS EII is part of the SET plan and that it brings together EC, industry and member states. It is the EC's tool for supporting technologies for combating climate change and he is very happy that this tool puts CCS on equal footing with renewable.
- Gardiner described the implementation plan and the open issues: the KPI on "cost of electricity", the governance of the CCS EII and the relation between CCS EII and ZEP.
  - Regarding the KPI on the levelised cost of electricity it was agreed to work the LCoE definition in the EII TWG, to develop ZEP position, (Johannes Heithoff/Philippe Paelinck to lead). This needs to conclude before the next AC meeting. The approval of the work is delegated to the ACEC, on condition that AC is given the opportunity to comment as part of the process
  - Regarding the governance of the CCS EII Peer Hoth referred to the government group and the government members in the CCS EII: The GG co-leads will meet next week and agree a proposal on member state representation in CCS EII. He also asked for a clear concise description of the overall structure. It was agreed that TWG EII will develop a proposal on EII Governance and will report back at the next AC meeting
- Regarding the positioning of ZEP versus the CCS EII Pietro noted that the CCS EII supports implementation of technology, whereas ZEP is an advisor. Graeme Sweeney reflected on the 1st meeting of the CCS EII team and the launch event. He remarked that Barroso seems keen on innovative partnerships such as ZEP and the EII and remarked that the level of MS representation does not yet create enthusiasm with the industrial representatives. He also stressed the need for proper version control of the implementation plan. CCS EII team agreed a version 20 May, further changes still have to be discussed. TWG EII will develop an updated proposal of the implementation plan that should be agreed with EC before the next meeting of the CCS EII team.
- Stan Dessens asks for attention for developing a view on the large scale roll out of CCS after 2020. One of the key issues is the ETS price of CO2 emission. At present nobody believes that the ETS alone will be capable of achieving large scale implementation. In the Netherlands a taskforce has developed a view on this. This view contains a recommendation for a European approach of countries that believe that the roll out of CCS should start in 2020, even if at that time the ETS emission price is too low. The Dutch taskforce, backed by environmental organisations and utilities, has proposed to sign a covenant at national level. Chairman invited Stan Dessens to present the Dutch approach at the next AC meeting. Kai Tullius supported such a ZEP effort.

#### 5 TFT

#### 5.1 The cost of CCS

Niels Peter Christensen summarized the status of the study into the cost of CCS. The report aims at makers of long term price projections for CO2 emission allowances and electric power, and EU/EC and national authorities who need it as input to formation of support schemes, policies and legislation. The report will be



completed towards the end of the year. The intention is to update it every 2 years. Cost of CCS is also input for TF D&I ongoing study on long term profitability of CCS, both TFs will cooperate.

#### Lighthouse projects

Dirk Goldschmidt presented the set up and results of the expression of interest for lighthouse projects. The main result was that it shows which R&D area's have the interest of industry. The EC will take these results as advice.

With respect to EERA (The European Energy Research Alliance) and R&D in general it is noted that:

- EERA is focused on basic research activities whereas the lighthouse projects are technology application on pilot scale by industry.
- There is overlap in staffing, EERA members also participate in TFT.
- Complementarities of research agendas are expected: EERA will take a different level of detail and will likely use TFT's work as a starting point.

## 6 Taskforce Policy&Regulation

Kristofer Hetland asked the AC for endorsement of a draft letter to the EC in which is asked to address the liability and financial security that, as it currently stands, are an open issue. The scale of the assumed theoretical liability may act as a significant barrier to CCS projects and the further deployment of CCS.

Dessens remarked that this particular issue has already been solved elsewhere, such as by the nuclear industry. He suggested to include a solution in the letter. Hetland agrees but at the moment ZEP restricts itself to helping flag the issue. Chapman (CCSA) reflected on several potential solutions and emphasized that for the moment it is important to flag the issue. Work on the solution will follow later.

The AC decided to endorse the liability and security letter.

## 7 Taskforce Demonstration and Implementation

Johannes Heithoff informed about the ongoing study on long term profitability of CCS. The work has to include the updated cost of CCS (input from TF T), the levelised cost of electricity in comparison to RES and other alternative low carbon options, the carbon price development and e.g. the question how to finance negative CO2 emission by use of biomass.

Philippe Paelinck outlined the status and the process for updating the Strategic Deployment Document ("the SDD"), see preread.

The AC asks additional attention for:

- The "gap" between the present outlook on CCS and what it should be:
- What it takes to bridge this gap and turn CCS into a success. This includes a consideration of the role of local communities on public acceptance on CCS;
- Storage. Pietro Barbucci notes that the lack of known storage capacity is likely to be a major bottleneck for several countries.

The timeline:



- Taskforces are asked to provide input in the SDD by mid July
- A draft will be discussed at AC#24 (16Sep10).
- The final SDD will be launched at the GA (13Oct10)

#### 8 Taskforce Public Communication

Eric Drosin informed the AC on:

- Website update. The new website will be launched at the General Assembly (13Oct10)
- Present activities and finances
- Events/networking project
- Ambassador project
- General Assembly 2010 that will be held on 13Oct10

See preread for details.

## 9 Working Group Organisation

#### Regulation for quick decisions of the ACEC

It was decided that the following procedures will be added to the ZEP bylaws:

- All ZEP-reports/-position papers and letters with strategic content that is different from what ZEP has already agreed to are subject to approval by the ZEP advisory council. Daily business such as media questions, in line with agreed ZEP positions therefore does not require AC approval.
- The ACEC only takes decisions if the AC is not timely available (urgency) and if the statements are deemed not to be contentious.
- Decisions to be taken by the AC will in all case require be commented on by the coordination group beforehand. In case of urgency ACEC decides and CG/AC must not be involved.
- Chairman decides on the basis of voting results. He may decide that a majority vote is not sufficient, and that consensus is preferred
- ACEC members are asked to appoint replacements for moments in which they themselves are not available. The choice of replacement is at the discretion of the AC members, it is preferred to select a colleague AC member of the same constituents group.
- ACEC members shall not be asked to decide unless there are at least 2 working days available (48 hours).

#### 9.2 High Level Group for enabling technologies

Robert van der Lande updated the AC on the High Level Group for enabling Technologies.

ZEP's interest in this HLG is that it is a channel for communicating messages. Therefore it is important that ZEP studies the scope of work of this HLG and identifies relevant issues. Graeme Sweeney invited the taskforce technology to identify such messages



- The ZEP secretariat will ask the ZEP HLG-members:
  - To brief ZEP before each HLG meeting about the agenda and identify the ZEP related issues:
  - o To brief ZEP after each meeting about the results
  - To brief the AC about the results

#### 10 Miscellaneous

### 10.1 Annual report

The annual report 2009 of ZEP was approved by the AC, with the note that the list of members of the TFPC needs to be added.

#### 10.2 The impact of the oil spill in the Gulf of Mexico

A summary of the discussion:

- It is still too early for an assessment.
- The demonstration programme itself will not deliver public acceptance or public credibility
- Graeme Sweeney would like to see some experts and underpinning research that could contribute to the understanding of public credibility
- Stan Dessens reported about the Dutch progress in this field. Professor Danker Damen has launched a view that focuses on the importance of alliances between industry, research, NGO's and government. In the post-Barendrecht age this view is the basis for achieving public acceptance for CCS projects in the North of the Netherlands. Graeme Sweeney invites Dessens to present this at the next AC meeting.

#### 10.3 Date of next meeting

The next AC meeting will be held on 16 September 2010.

#### 11 Decisions

D23.1: ZEP will invite Tone Skogen or a representative of Mongstad to provide background information on the delayed Final Investment Decision on CCS at the Mongstad refinery.

D23.2: Damian Müller of Vattenfall has been accepted as co-chair of the taskforce Public Communications

D23.3: The draft letter of ZEP regarding the NER300 in which ZEP proposes to strengthen the commitment to submitted projects will be rephrased (positive tone) and then be sent out.

D23.4: The ZEP AC accepted the proposal of DG ENER for the project network advisory forum.



D23.5: ZEP will develop and publish its set of reference criteria (a "standard") for roadmaps, will advise the EC on the CCS position in relevant published roadmaps and use it for the public debate. While this is a substantial piece of work TFDI make a proposal (to the ACEC).

D23.6: Johannes Heithoff and Philippe Paelinck will detail the KPI on the levelised cost of electricity LCoE. The approval of the work is delegated to the ACEC, on condition that AC is given the opportunity to comment as part of the process.

- D23.7: TWG EII will develop an updated proposal of the CCS EII implementation plan (version control) that should be agreed with EC before the next meeting of the CCS EII team.
- D23.8: TWG EII will develop a proposal on EII Governance and will report back at the next AC meeting.
- D23.9: Stan Dessens is asked to present the Dutch view on the large scale roll out of CCS after 2020 at the next AC meeting.
- D22.10: The AC decided to endorse the liability and security letter and send it out.
- D23.11: Taskforces are asked to provide input for the SDD by mid July. TF D&I will present a draft at AC#24 (16Sep10). The final SDD will be launched at the GA (13Oct10).
- D23.12: The proposed additions to the ZEP bylaws were accepted.
- D23.13: Taskforce technology is invited to identify relevant issues for the HLG.
- D23.14: The ZEP secretariat will ask the ZEP HLG-members:
  - To brief ZEP before each HLG meeting about the agenda and identify the ZEP related issues:
  - To brief ZEP after each meeting about the results
  - To brief the AC about the results

D23.15: The annual report 2009 of ZEP was approved by the AC, with the note that the list of members of the TFPC needs to be added.



# 12 Annex 1, attendees

AC23 attendance			
Meeting name	Surname	Invitation accepted	
AC23	Scowcroft	Y,observer Eurelectric	
AC23	Johnston	Y, observer WWF	
AC23	de Wolff	Y, observer KEMA	
AC23	Diercks	Y, observer Euracoal	
AC23	van Well	Y, observer Dong	
AC23	bourgeois	Y, observer CGG Veritas	
AC23	Chapman	Y, observer CCSA	
AC23	Cussaguet	Y, observer BG group	
AC23	Hoth	Y, GG	
AC23	Bennett	Y, EC	
AC23	Kougionas	Y, EC	
AC23	RALDOW	Y, EC	
AC23	Tullius	Y, EC	
AC23	Westgaard	Y, candidate AC member	
AC23	Bysveen	Y, AC,replaces Rokke	
AC23	Pogoreutz	Y, AC,replaces Gasteiger	
AC23	Goldschmidt	Y, AC, represents Suess	
AC23	Brouwer	Y, AC, replaces van Bracht	
AC23	Martin	Y, AC, replaces Valero	
AC23	Paelinck	Y, AC, replaces Soothill	
AC23	Eckert	Y, AC, replaces Rennert	
AC23	Luis Ruiz	Y, AC, replaces Martinez Jubitero	
AC23	Heithoff	Y, AC, replaces Lambertz	
AC23	Irons	Y, AC, replaces Fischer	
AC23	Becker	Y, AC, replaces Cordoba	
AC23	Kalaydjian	Y, AC, replaces Appert	
AC23	Barbucci	Y, AC	
AC23	Christensen	Y, AC	
AC23	Constantin	Y, AC	



AC23 attendance			
Meeting name	Surname	Invitation accepted	
AC23	Cortes-Galeano	Y, AC	
AC23	De Lannoy	Y, AC	
AC23	De Marliave	Y, AC	
AC23	Dessens	Y, AC	
AC23	Giger	Y, AC	
AC23	Heitzmann	Y, AC	
AC23	Hill	Y, AC	
AC23	Maso	Y, AC	
AC23	Sweeney	Y, AC	
AC23	Szynol	Y, AC	
AC23	White	Y, AC	
AC23	Bergmann	Υ	
AC23	Frisvold	Υ	
AC23	Hetland	Υ	
AC23	Hone	Υ	
AC23	Drosin	Υ	
AC23	van der Lande	Υ	
AC23	Martinez Jubitero	N,AC, replaced by Teresa Luis	
AC23	Fischer	N,AC, replaced by Irons	
AC23	Cordoba	N,AC, replaced by Becker	
AC23	Røkke	N, replaced by Bysveen	
AC23	Harris	N, observer GCCSI	
AC23	Clerens	N, observer EPPSA	
AC23	Hassa	N, AC,represented by Christensen	
AC23	Rennert	N, AC,replaced by Eckert	
AC23	Lambertz	N, AC, replaced by Heithoff	
AC23	Gasteiger	N, AC, replaced by Pogoreutz	
AC23	Appert	N, AC, replaced by Kalaydjian	
AC23	van Bracht	N, AC, replaced by Jan Brouwer	
AC23	Soothill	N, AC	
AC23	Alvarez	N, AC	
AC23	Farley	N, AC	
AC23	Gye	N, AC	



AC23 attendance			
Meeting name	Surname	Invitation accepted	
AC23	Kakaras	N, AC	
AC23	Suess	N, AC	
AC23	Kather	N	
AC23	Vortmeyer	N	
AC23	Willnow	N	
AC23	Zelinger	N, observer EUTurbines	