



Memo

To ETP ZEP Co-ordination Group
From ETP ZEP Secretariat
Date 12 July 2007
Subject Notes of Co-ordination Group meeting #15, 11th July 2007, Brussels

Participants

Name	Surname	Organisation
Heinz	Bergmann	RWE Power AG
Niels Peter	Christensen	Geological Survey of Denmark and Greenland, GEUS
Paal	Frisvold	Bellona Europa
Ioannis	Galanis	EC, DG TREN
Helmut	Geipel	BMWi Fed. Ministry of Economics and Technology
François	Giger	EDF/DPIT
Kurt	Häge	Vattenfall Europe AG
Johannes	Heithoff	RWE Power AG
Vassilios	Kougionas	EC, DG RTD
Nick	Otter	ALSTOM Power
Wiktor	Raldow	EC, DG RTD
Alexandre	Roje	IFP
Manuel	Sanchez Jimenez	EC, DG RTD
Lynn	Sheppard	EC, DG ENV
Marten	Slagter	PwC
Hermione	st. Leger	Shell
Derek	Taylor	DG TREN
Arve	Thorvik	STATOIL
Gijs	van Breda Vriesman	Shell Hydrogen
Robert	van der Lande	Triarii
Matthew	Webb	UK DEFRA

0 Introduction/ aims of meeting

Kurt Häge opened the meeting and outlined the aims of the meeting:

- to ensure that the way forward is clear regarding actions on the ZEP Flagship Programme
- to consider the international element of the ETP ZEP activities, especially those on demonstration
- to consider any actions necessary to promote the ETP ZEP response to the EC SET Plan
- to receive an update on technology and policy/regulation developments
- to agree the best way to implement a CCS Awareness Campaign
- to receive an update on the way forward for ZEP Government Group
- to consider position on ZEP publications/terminology and communication mechanisms

1 Overall position

First of all, due to unavailability of some key individuals, Nick Otter announced an agenda change; item 2 'ZEP Flagship Programme' was moved to after lunchtime, other agenda items remained unchanged.

He reviewed the activities of the previous months following the last CG meeting in March and the AC in June. There had been some important meetings in that period.

- The AC and Potsdam CCS Event on 12-13th June 2007: Nick congratulated the organisers of the CO2SINK launch event for a very successful day where the presence of Commissioner Piebalgs had been an important signal as to the political acceptability of such technologies. The Commissioner spoke very positively about the need for urgent deployment of CCS but also posed some questions to which the ZEP Platform would have to respond, especially the size and shape of the proposed ZEP Flagship Programme and the financing that would be required. There had been a high level of press coverage (see the bundle of press articles held by the Secretariat).
- The EC Inter-Service Task Force on CCS related issues on 18th June 2007.
- The ETP leaders meeting on 21st June 2007 regarding more focussed ERA-NET actions
- The Roundtable meeting with Commissioners on 22nd June 2007 on the EC SET Plan

Notes of these last three meetings have been issued by the Secretariat. During the meeting with the EC Inter-Service Task Force meeting on 18th June 2007, Nick Otter, Frederic Hauge, Arve Thorvik and Andre Zeijnsink were invited to give a general position of the ZEP Platform and on the ZEP Flagship Programme in particular. The feedback from the Inter-Service Taskforce was positive and stimulating. As preparation for the CG discussions, Nick showed the presentation given at the meeting.

There followed a discussion on the 'open' issues identified with the InterService Task Force:

ZEP Flagship Programme

- Structure: development of 'technology block approach'
- Financing: amount and how it can be provided
- Incentives: work with EC to get best approach
- PPP: form and process
- International element: demonstration in China and India?
- Communication campaign: how to use Flagship Programme?

Technology

- Priorities?
- Level of funding?

International issues

- How to engage developing countries

Role of Member States

The following points were noted:

- The UK will launch its competition for CCS demonstrators towards the end of the year, the fiscal contribution from the government was still under discussion but could be of 'several hundred million euro'. Other Member States were also considering their approach that could result in other significant national programmes.
- This raises the question on how to integrate the Member States activities into the ETP-ZEP plans, in particular with the ZEP Flagship Programme.
- In his capacity as vice-chair of the Government Group, Helmut Geipel stressed that the programme should consider and endorse the proper engagement of governments and companies, and not hinder them by the integration. As project selection is concerned, we should realise that the financing body or bodies must be in charge of it.
- This was reinforced by Arve Thorvik who was afraid that if decisions (especially funding of demos) are left to individual Member States this might go at the expense of the cohesion of the Flagship Programme. And if 30 countries will have to share 12 projects this will lead to a degree of infighting.
- Niels Peter Christensen indicated that CCS demo initiatives of individual Member States are in deed progressing and that this might overrule the Flagship Programme criteria currently being developed by the Platform. This might reduce the selection criteria of the Flagship Programme to geographical

spread only.

- Matthew Webb emphasised the knowledge sharing among the demonstration projects, especially within Europe but also internationally outside Europe..

In response to slide 'critical issues', Wiktor Raldow stressed:

- The Commission takes the time constraints of CCS extremely serious. The present actions of member states such as the UK are seen as a sign in this respect.
- With respect to financing: an important element of financing will have to come from Member States themselves such as the UK is doing now. But also Structural Funds may be part of the package, as well as loans of EIB etc.
- The Commission will:
 - Ensure that this MS state aid will be legally possible through amending new state aid rules.
 - Make the selection process for demos less complicated by providing "stamps" to projects of European common interest.
 - Provide an 'umbrella structure' to deal with the call for proposals, CCS technology development, a public acceptance campaign and knowledge management.
- The role of the Member States is crucial in this process. However, some Member States may follow their own route and act individually.
- Regarding the international element of the Flagship Programme, Raldow mentioned the following:
 - US SECA (Solid State Energy Conversion Alliance) programme development of small scale actions in CCS R&D.
 - CCS demo projects are not a priority of China and India as their main concern and first priority is to meet their everrising domestic electricity demand.

Ioannis Galanis mentioned that although everything is still debated and could be subject to change, the following emerges from internal EC discussions:

- For 2007, the priorities of the EC are with:
 - Selection mechanism for CCS demo projects; sequencing of Flagship Programme priorities.
 - How to support the demo projects.
 - Authorization of demo projects (modification of the legal framework, to be adopted in November 2007, together with the SET-plan).
- The Commission intends to publish two communications in 2007:
 - A communication of DG TREN on how to support the demos to be published October 2007.
 - A communication by DG ENV concerning an environmental impact assessment to be published mid November 2007.
- A communication about how the EU ETS will be amended is expected to be finalised early 2008, together with a proposal on the CO2 infrastructure.
- The further development of CCS technology will have the ongoing attention of the Commission.
- The mechanism to support the demos:
 - The Commission considers an 'umbrella support structure' to be financed with FP7 money.
 - The legal form of the network is yet to be decided. This will not be done this year
 - The 'stamp' that would be given to the Flagship projects could be a "préjugé favorable", a recognition of the Commission that it considers CCS projects need more funding as they carry higher risk and are of common interest to the EU. This labeling should help national state aid agencies to approve state aid more quickly. It would also give the certainty to operators they need for investment.
 - The Commission would also give an advice to Member States on compensation /incentive mechanisms in addition to the EU-ETS.
 - EIB funding of CCS demo projects in an early stage may not be forthcoming as a positive cash-flow is a prerequisite for EIB support.
- In addition to the feedback from Ioannis Galanis, Wiktor Raldow indicated that funding from the Structural Funds could be applicable for CCS demo projects, but only if these are located in the so called objective 1 regions.
- Ioannis Galanis remarked that projects that are not proposed under the Flagship Programme (under the "umbrella structure") could also be allowed to receive state support. However, projects stamped as "préjugé favorable" are already pre-checked, so the procedure for implementation of projects under the Flagship Programme should be much quicker (e.g. state aid procedures are already passed) and offers the required certainty to investors.
- Paal Frisvold expressed his worry about the present proposed guidelines for state aid, as CCS was not sufficiently covered. He felt that there is some differences of opinion on how best to go forward in this respect and that DG COMP will develop a new version of the guidelines that will be discussed at the end of October 2007. It would be necessary to alert MS competition authorities to these issues.

- In reply Ioannis Galanis mentioned that the EC Inter-Service committee agreed with DG COMP that CCS would be dealt with in a case-by-case evaluation outside DG COMP as they do not have enough expertise in this field. It is sufficient that the new state aid guidelines only refer to CCS.
- Johannes Heithoff mentioned that commissioner Piebalgs sent out a separate letters to Member States and to European utilities (40 power companies) asking for envisaged CCS projects and the estimated funding needed (amount and sources of funding including % of state aid). In parallel, Eurelectric is also working on a similar study, which requires the same input. Currently these studies are not coordinated. In addition, it should be noted that CO2 transport and storage costs are difficult to estimate, as this highly depends on the geographical situation.

3 Technology

Niels-Peter Christensen gave an update on the progress and actions:

- ETP-ZEP recommendations as input to the 2008 calls within FP7 Energy Work Programme was delivered in time.
- The Technology Taskforce had not yet had the opportunity yet to have a dialogue with the Commission, as EC representatives were busy evaluating the response to 2007 calls.
- EC has asked ETP-ZEP to come up with a cost estimate for R&D. The Technology Taskforce will address this issue and the estimate should be available before the next AC-meeting in September. (Dirk Goldschmidt will start this exercise after his holidays).

4 Policy and Regulation

Paal Frisvold gave an update of the work of the taskforce, and stressed three important issues:

1. Regulatory framework:
 - 1.1. What kind of legislation is needed?
 - Amending existing legislation (IPCC directive), or
 - Develop new legislation.
 - 1.2. How to authorize storage?
 - By means of a central European body? or
 - Organise this on MS level.

In response to this issue, Niels Peter Christensen suggested that at least for the first projects there should be such a central body.

- 1.3. When will CCS technology become mandatory (also retrofit)?
 - In the clean coal communication it was suggested that as of 2020 CCS is to be mandatory. This issue is under active debate within the EC.
2. State Aid issues:
 - In response to the draft EC state aid regulation the Taskforce Policy and Regulation issued a response to the EC on behalf of ETP-ZEP.
3. Flagship Programme:
 - Financing and funding issues are important and to be covered in the PwC study on behalf of DG TREN due to report in September/October time frame.
 - Importance of CCS in the post-Kyoto regime. CCS needs to be accepted as an appropriate technology at the forthcoming COPMOP meeting in Bali in December 2007.

5 Public Communication and Awareness

An update of the work of the Public Communication Taskforce was provided by Hermione St. Leger (see presentation) including:

- The Taskforce proposed that the new ZEP website be financed 50% by the three companies who have already committed funds (Statoil, Alstom, Schlumberger) and 50% by the Secretariat (through reallocation of the video budget). This would enable work to begin immediately.
- Other short- and long-term options will also be explored for funding a comprehensive public information campaign: a) FP7 b) via ZEP's contacts in the EC's InterServices Taskforce on CCS c) via EC's service procurement process. Corporate branding was also raised as a possibility.
- The Taskforce is now preparing a detailed strategy paper on the way forward for the public information campaign which will be circulated prior to, and presented at, the next AC meeting.

In response, the following was stated:

- According to Galanis, public acceptance could be under the envisaged umbrella structure and hence receive funds from FP7. Such an approach would be an open call outside the official call process so the financing could be available before 2009, possibly second half of 2008.
- Arve Thorvik stressed the urgency of the issue and that the start of a public awareness campaign cannot wait so long. It has to start immediately, addressing such issues as those raised by a German journalist who published an article saying that corrosion is an insurmountable obstacle for CCS.
- Robert van der Lande mentioned that the AC has to decide on the reallocation of Secretariat budget, hence a decision could not be taken at this meeting, only a recommendation if felt to be appropriate. There was also the issue of consulting widely across the organisations involved in the Platform that needed to be considered.
- Niels Peter Christensen considered the proposed branded PR communication campaign very undesirable. ETP ZEP should act as a coalition and thus company logos should be avoided.
- In addition to the proposed CCS public communication campaign, Lynn Sheppard mentioned that during the COPMOP meeting in Bali, there could well be a side event. If so it would be desirable to have an ETP ZEP stand and material available there. This suggestion will be taken forward.

The issue of the Communication Campaign was identified as an open issue at the InterService Task Force discussions and will be followed up as a specific action with DG/EnV.

During the aforementioned discussion, the chairman and some other members left the meeting.

7 International Collaboration Issues

This issue was introduced by Matthew Webb of UK Government/DEFRA where he has responsibility for taking these CCS issues forward internationally, especially with developing countries like India and China. He emphasized the moral obligation we have to get other countries involved (not just China & India, although they are on top of the list). He emphasized the importance of engagement with China and India as the climate change problem can only be tackled at a global scale. In addition, the current Chinese gasification and EOR initiatives can be complementary to CCS deployment. He suggested that China should participate in the Flagship Projects albeit maybe in a later cycle.

The following was noted:

- It was agreed that we should invite representatives of India and China to the GA in October 2007. Matthew Webb and Derek Taylor will send the names of the Chinese people that should be invited to the secretariat.
- Heinz Bergmann questioned whether it was appropriate to use EC funds in China, especially with the strong need to carry forward actions in Europe.
- Vassilios Kougionas mentioned that in 2005 both the EC and China agreed on a MoU to deploy CCS by means of at least one CCS demo project in China. He recognised the need for international engagement on these issues and EU-China and EU-India Energy Summits are being organised for the Autumn of 2007.
- Helmut Geipel mentioned the lack of knowledge about what was happening with the cooperation with China:
 - Collect info about how to engage China. Are there positive examples of cooperation with China? What about Futuregen?
 - Make inventory of "lessons learned"
 - Get a clear view on the position of partners (EC, companies, China)
 - Develop a view on technology transfer
- Johannes Heithoff stressed that money/ funding is not the issue for China, and they do have a lot of relevant knowledge, having more gasifiers than anyone else.
- Niels Peter Christensen suggests that the current China - EU projects (NZEC) should be made European, by getting more member states involved.
- Paal Frisvold suggested to mobilise World Bank financing for funding CCS projects in China.
- Manuel Sanchez Jimenez stressed the need for a paper about EU-China engagement in the Flagship Programme.
- According to Derek Taylor it is important to deploy CCS technology in China and India as soon as possible, because the share of coal in their energy mix will increase. In addition, he suggested that it would be appropriate to include NZEC or only a single Chinese CCS project in the Flagship Programme. Also, the Platform should consider the inclusion of other third country CCS projects (besides China) in the Flagship Programme.

Nick Otter summarised the discussion:

- At the last CG meeting it was decided that he, Graeme Sweeney and Vassilios Kougionas would jointly make a ZEP-strategy paper on getting China involved. This was still an open action that now needed to be addressed in the context of the above discussion.
- Chinese and Indian representatives should be invited to the GA in Paris.
- A briefing paper about the lessons learned in EU-China joint projects/initiatives should be produced as input to the forthcoming Government Group meeting in Madrid in September. This should be led by the EC/Vassilios Kougionas.

2 ZEP Flagship Programme

Strategic Structure and Framework including Technology Block Approach

Niels Peter Christensen was asked to give some feedback on the meeting of the working group on technology blocks (part of the taskforce D&I). Of those who were present at the CG meeting, he was the only one that attended that meeting.

- He started off with a question about the type of projects allowed under the Flagship Programme: commercial size projects or commercial projects? It was agreed that projects should not be commercial ones but of large `industrial scale` as defined in the terms of reference for the D&I Task Force.
- He confirmed that the proposal for technology blocks is aimed to being finalised at the end of September.
- Alexandre Rojey remarks that technology blocks need to be linked to the R&D programme (and hence involve the Taskforce Technology).
- Johannes Heithoff (responsible for the infrastructure in the TF D&I) points at the difficulty of making cost estimates for demo-projects. In order to understand the costs of CO₂- transport infrastructure and make the right decisions on this, it is necessary to understand the infrastructure of the future. CO₂ transport and storage is also in competition with gas transport and storage. For this reason utilities may not be willing to disclose information about pipeline infrastructure.

DG ENV (Scott Brockett) has contracted TNO of the Netherlands for a study to map CO₂ sources and sinks. That study can be of help for developing the outlines of the CO₂ infrastructure. The TNO study starts this week and should be completed in September 2007. It is going to be an input for the environmental impact assessment. Hopefully this would be made available to the Platform.

Funding requirement and Development of Incentives

Gijs Vriesman gave his presentation on the envisaged structure and organisation of the Flagship Programme. In addition, he elaborated on the talks and presentation of Climate Change Capital (CCC) that will undertake a study about the financing of the Flagship Programme as well as an assessment of associated environmental and policy issues. Also the international financing dimension of the Flagship Programme (engagement with China and India etc.) will be studied by CCC.

CCC will organise three workshops in order to discuss preliminary outcomes and to engage with ETP-ZEP:

- 31st July, CCC premises, London.
- 31st August, venue to be determined.
- 3rd September, venue to be determined.

In response to the presentations of Gijs Vriesman the following was stated:

- Ioannis Galanis:
 - The proposed structure is basically a JTI-approach. The Commission prefers a lighter approach (the earlier mentioned 'umbrella' structure).
 - Additionally he states that the Commission could decide to do the project selection itself by establishing a 'review committee' consisting of EC, ETP-ZEP and other relevant stakeholders. Finally, Member States must authorize the selected demo projects.
 - It is of crucial importance to have a common basis of data and assumptions for both studies (CCC and PwC).
 - Currently, a debate is going on within the Commission whether ETP-ZEP should stay a neutral body (giving advice to the Commission) or whether it will become a legal body that should engage in the CCS demo's implementation process. This debate influences the organisational design.
- Paal Frisvold invited Ioannis Galanis to be regularly informed by CCC about their work, in order to

- enable coordination between both studies. Ioannis Galanis accepted this invitation.
- Manuel Sanchez remarked that it might be too early to come up with an organisational design at this stage, as the debate within the Commission is not finished yet.

Nick Otter concluded that the EC and ETP-ZEP have at the moment separate thought processes on the organisational design and would like to have an informal meeting with the Commission to ensure that we converge on this. He will provide a timeline on possible interaction moments with the EC on this issue. In the meantime, the Secretariat together with Gijs Vriesman will try to arrange an informal meeting to discuss the objectives of a possible umbrella organisation with the Commission before the end of July.

Gijs Vriesman proposed to set up a separate working group on organisational design. In this context, it was decided that it would be beneficial to have the appropriate level of interaction to discuss the ideas coming out of the D&I Taskforce on the shape of the proposed PPP, especially those people involved in the Platform `Executive Board`. The shape and structure of the PPP could well be critical as to the future actions of ETP ZEP. He undertook to try and organise this (to establish a workgroup on organisational issues), noting that the topic would be certainly an item for the next meeting of the CG.

6 Government Group and Member State Relations

Helmut Geipel stressed that a synthesis report on the Country profiles is needed so that this can be discussed during the next AC meeting in Madrid. The Secretariat will assist the Government Group to draft such a document.

8 ETP ZEP response to SET plan

The report on the 22nd June meeting attended by Kurt Haege was noted. There remains what needs to be done to progress the ideas coming from the ZEP Platform. There being not sufficient time this issue was deferred for the time being, but recognised as an important issue.

9 Feedback and forthcoming event preparation

Feedback from ZEP Event Potsdam

Heinz Bergmann informed the meeting about the impressive media interest for the CO2SINK launch event, as German newspapers (Bild), magazines (der Spiegel) and TV reported on the event. Also TV channels from countries outside Germany reported about it. All media releases are bundled in a press package which was circulated during the meeting and a copy will be available at the Secretariat.

EC ETP Meeting 21st June 07, Brussels

In the introduction of this CG meeting, chairman Kurt Häge already informed the meeting about this event, and a short summary of the event was distributed by e-mail.

General Assembly October 2007, Paris

Robert van der Lande provided a short update about the organisation of the GA. The participation of a high level Commission representative was discussed. Peter Carl seems to be unsure. Vassilios Kougionas and Manuel Sanchez both advise to ask Commissioner Potocnik.

10 Update on ZEP publications/publicity

This item was not discussed as a result of time limitations.

11 Timetable and summary of actions

Co-ordination group meeting #15			Action Summary v1
Brussels 11 th July 2007			12 July 07
Summary of Actions			
Action No.	Description	Owner	Completion Date
1	Prepare input for EC Strategy paper on how to cooperate on CCS with China in the future	Kougionas, Otter, Sweeney, Christensen	October 2007

2	Provide EC DG RTD with an estimation of R&D costs on CCS	TF Tech.	September 2007
3	Establish contacts to provide a ETP ZEP stand for side event at COPMOP in Bali	Secretariat	ASAP
4	Provide the names of the Chinese and Indian people that should be invited to the GA	Matthew Webb, Derek Taylor	ASAP
5	Draft a briefing paper about actions and the lessons learned in EU-China joint projects/ initiatives.	Vassilios Kougionas	20 August
6	Provide a timeline with respect to the ETP-ZEP plan of interaction with the Commission, especially in relation to the shape and structure of the PPP	Nick Otter	September 2007
7	Follow up the Communication Campaign issue with DG/ENV as to the likelihood of possible support, following the InterService TF meeting.	Secretariat	31 July 2007
8	Draft synthesis report on country profiles	Government Group & Secretariat	August 2007
9	Invite Commissioner Potocnik to the GA 2007	Secretariat	DONE and invitation not accepted
10	Arrange informal meeting with EC about envisaged umbrella organisation for Flagship Programme	Gijs Vriesman/ Secretariat	ASAP

12 AOB and date/venue of next meeting

Next meeting will be held on 22nd August 2007 at the Frankfurt Airport ConferenceCenter in Room K06.