

ZEP Advisory Council Meeting #36

Minutes of meeting

Date and time: 18 September 2013, 10.30 – 17.00 hrs.

Venue: Centre Borschette, Brussels

Status: draft, to be approved by AC at AC#37

The list of attendees is attached as annex 1.

1 Opening

Chairman opened the meeting.

- AC adopted the agenda
- AC approved the minutes of the previous AC meeting, with the note that the attendance list needs to be corrected. Reinhold Elsen mistakenly is mentioned as attendee.

New co chairs of Taskforces:

- DECISION: AC appoints Claudia Tomescu as co chair of TF D&I.

Membership ACEC:

- The ZEP research constituency still is in the process of nominating and appointing a successor to Olivier Appert. Nils Rokke is in the lead, he expects to nominate a vice chair at the end of the week

Chairman notified AC of the changes in membership of AC:

- Marzena Gurgul steps down as an AC member, because of the current prospects of CCS in Poland
- Georg Gasteiger (Babcock Borsig Steinmüller) steps down because of the lack of political support for CCS in Germany. He will remain linked to ZEP activities as a member of EPPSA.
- Antonio Valero (CIRCE) resigns as an AC member. Reasons are his duties as a Director of CIRCE, and the weak research support of the Spanish Government for CCS.
- Gas Natural plans to propose a successor of Arcadio Gutierrez Zapico

Chairman reviewed the list, included in the pre-read, of the decisions that ACEC made after AC35. In particular he noted that with respect to ZEP's response to the CCS communication ACEC took a decision that differed from the instructions given by AC at the AC35 meeting.

- This was done because AC members had commented on the final draft that was sent to them for approval. Chairman was looking for overarching consensus, consulted ACEC which resulted in 2 small but nevertheless important changes.
- In response to the question of Chairman the AC noted that the response that was finally submitted was balanced and good, however the process needs to be reviewed.

The process will further be discussed under agenda item 5.

2 Open items

Secretariat reviewed the decisions taken at AC 35. There are no outstanding issues.

Secretariat noted that at the previous AC meeting AC should have decided but did not decide on two documents, submitted by TF P&R, therefore asks AC to decide.

DECISION: AC approves the ZEP CCS directive letter and the London Protocol letter.

DECISION: In the future AC will be informed of the addressees of the letters that it is asked to approve.

3 Review EU CCS developments

Chairman started this agenda item by recognizing the importance of ZEP's recognition by EC as an ETP. It gives ZEP clarity about its forward status. EC's strategy for ETP's towards 2020 shows the emphasis that it puts on innovation. This is in line with ZEP's approach: ZEP has always included demoprojects, early deployment and the societal case in its discussions. The societal benefits of CCS include the application of CCS in non-power industries which is now part of the broadened scope of the ZEP activities.

3.1 RTD

Kougionas informed the AC

He congratulated ZEP with the recognition as a platform. Some platforms were discontinued. The role of ETP's remains the same: provide advice to EC. The emphasis is increasingly on innovation, on member states and on interaction with other ETP's. He notes that with respect to the financial support of the ETP's the strategy paper announces that EC will make available funds that are no longer described as financial support to secretariats but are labelled differently. The funding will be available for developing roadmaps and for coordination activities..

With respect to H2020:

- the budget for H2020 is agreed,
- if all goes well the first calls will be published in December 2013.
- The contents of the calls are yet to be decided. Recently the programming committee met to discuss the work programme Energy for the next 2 years. Four topics are proposed:
 - co2 storage, demonstration, storage pilots, emphasis on existing cooperation with Australia. For the moment this will include cooperation with US and Canada,
 - industrial applications cover full cycle research → pilots. Includes BioCCS
 - environmental aspects of shale gas
 - flexible powerplants

With respect to the last FP7 call there was an emphasis on cooperation with Australia in the field of capture technologies. The budget (in total over €33M) allowed EC to fund 6 projects. At the beginning of 2014 EC will hold a workshop to fine tune EU-Australia Twinning Activities

Vassilios also asked ZEP for an advice on a request of South Korea to EC for cooperation.

DECISION: ZEP will advise EC on the topic of cooperation with South Korea.

Comments

- H2020 provides more support for CCS than was initially anticipated. It provides significant financial opportunities to fossil fuels R&I.
- It is considered positive that CCS is now included jointly with renewables under low carbon energy banner.
- The draft work programme energy supports cooperation among MS through the ERANET+ scheme which could be the precursor of the Berlin-model schemes. The Joint action working group, consisting of ERANET members, is in the process of listing and prioritising technology projects for this scheme. The list will include pilots, flexible power plants, bioccs.
- Chairman notes that there are 2 action lines that ZEP should pursue:
 - o Develop a view on the opportunities offered by the work programme energy. In particular this regards the call that has been issued for projects outside ERANET, which provides opportunities for larger projects, such as the use of R&D CCS-infrastructure (Schwarze Pumpe, Compostilla etc.). DECISION: ZEP (TF T) develop a programme around opportunities offered by the schemes proposed in the energy work programme 2020.
 - o Provide comments on the energy work programme. DECISION: ZEP (TF T) will provide comments to EC with regard to the work programme energy, even though this is not requested. Member States are asked to provide comments to DG RTD before 27 September. ZEP should submit its view in the same period. In this comment ZEP should consider how it can help with the execution of the work programme.
- TF T will take these tasks upon itself and notes that the work is closely connected to the Integrated Roadmap that is developed in the same period and has a similar timeline.
- Peter Radgen considers that transport infrastructure is as important as capture and storage and that it is not present in the first call. Vassilios Kougionas confirmed this, however it could be considered for later calls. There is also another programme (connecting Europe) that could support transport infrastructure projects. DECISION: ZEP to investigate the opportunities that this programme offers and whether it can be a receptor for ZEP's transport infrastructure needs.
- Peter also is afraid of slow implementation of H2020 projects. E.ON has some experience with delays with FP7 projects. He stresses the H2020 funding opportunities alone are not enough and that it is important that EC and industry get aligned in an early stage with respect to H2020 projects. He fears that, if not, this could result in loss of traction.
- Vassilios confirmed that also under H2020 the mirror groups (within ZEP called: the government group) have the same and even more enhanced role in ETP's as under FP7.

3.2 ENER

Ilinca Balan updated the AC on recent developments:

- ENER is working on the report on analysing the feedback it received on the CCS consultative Communication. ENER received more than 150 contributions. The responses show support for inclusion of CCS in the 2030 package. Report to be published in October. CLIMA and ENER are working on the 2030 communication expected for the end of 2013, and are considering how to integrate CCS (some orientation). It is too soon to say what objectives will be put in. Late 2014 there will be a new team of commissioners who need space for concrete proposals, therefore the communication won't be too rigid. In the mean time, in order not to lose momentum, work should be carried out, including under H2020, in a number of fields:
 - o International cooperation. Australia is already well on track. There is however also work to be done with the US: Oettinger visited the US in July. CCS was mentioned several times,

- including by the energy secretary of state. CCS is also getting traction in China, therefore cooperation with China deserves attention.
- public acceptance. The consultation points at the need to carry out work in this field. Important issues are the value of CCS for society and building public confidence.

Comments

- Chairman notes that China is becoming more important. They are gearing up their CCS efforts and they have already invested in CCS in the US. EC should consider this when prioritising international cooperation;
- Jeff Chapman asks EC to have appropriate representation at the ministerial CSLF meeting in November, he suggests that the commissioner attends. At past CSLF events the EC was not well represented. The CSLF meeting in November is in particular important. High level EC attendance is a signal to those abroad and to those in Europe. Ilinca Balan replied that ENER is aware of the request but the issue still is under consideration;
- Chairman notes that ZEP also seeks to attend.

3.3 CLIMA

Coda informed the ZEP AC about recent developments. The update is brief because much of the work is still being progressed.

- The NER300 call closed on 3 July. 1 CCS application only, 33 in total. Due diligence and further assessments are in progress. There are no major changes in the planning. Expect award decision mid 2014.
- CCS Directive: the implementation report is not yet completed.
- The review of the CCS-Directive is officially to start in 2014.
- CLIMA is working to close the Infringement procedures. It expects that the majority of the cases will be closed by end of the year. There are 2 types of infringements: non-conformity of the transposition measures and non completeness of the transposition measures.

A summary of the discussion:

With respect to ETS CLIMA is looking to the the backloading proposal. It is expected by the end of the year that the proposal for the climate and energy framework for 2030 will be adopted, which could also possibly include proposals for ETS.

4 Strategy implementation

Tim Bertels informed AC about the progress, see pre read.

Comments and discussion:

- Action item 9 (support recycling EEP) will be closed. TF D&I will of course think about other forms of support.
- Action item 6 (CCS for Gas) and 7 (link CCS and energy storage) is, as stated in the progress overview, work in progress. TF T already wrote drafts but decided to further mature the work.
- Action item 12 (write new strategy) has not yet started, partly because it builds on all the other work. The result is however important and time critical as it has to be presented at the ZEP GA, it can't wait until the next AC meeting. Reinhold Elsen will develop a planning for delivering the work in time.

This will include delivering a draft to the AC for approval/comment by email after which ACEC can finish it.

- Action item 3 (business case for storage) might not be completed at AC37 as the presentation of Tim states. In a later phase the business case for transport infrastructure needs to be included.
- Action item 13 (response to various letters): To the action item will be added: ZEP's letter regarding the review of the CCS directive.

5 Review of processes

Chairman informed AC about the progress made regarding the review of the ZEP processes. Over the summer some preparatory work was done (in particular the writing of the Terms of Reference) and chairman has identified an independent reviewer who is willing to take on the task: Tim Dixon of IEA. He asks AC to agree to the ToR and to Tim Dixon as the independent leader of the review.

Comments on ToR:

- General remarks:
 - o Many AC members understand the complexity of the situation and express appreciation for the way chairman has tried to secure a solution;
 - o Many AC members believe that ZEP should rather look forward, not spend too much time on the review and only review what happened to the extent that it is really necessary;
 - o Changing the bylaws may not make the processes perfect. We need to strike the right balance;
- Remarks regarding Objective 1 (improve decision making processes):
 - o It should be considered that there was a high time pressure in which there was no time to design the perfect process. ACEC decisions are sometimes inevitable. Nevertheless we need to get better at decision making;
 - o Rules can't cover it all;
 - o NGO's emphasize the importance of reviewing and improving the processes. What happened has led to a break down of confidence, both with respect to fair decision making as well as with respect to internal alignment;
 - o The terms of reference should express that the review should improve ZEP's capabilities on effective, quick and urgent decision making;
 - o There are several elements in the decision making process that weren't clear. A few examples: What to do with people who don't stick to the question (it was a y/n question). What to do if ACEC member don't participate? that needs clarified;
 - o The ToR should not mention that the bylaws need changing. This should be left to the reviewer;
 - o Jeff Chapman, observer, notes that ZEP is an ETP and therefore primarily is an advisory body. In his view the problems arose when ZEP took on an advocacy role, for which ZEP isn't really equipped. He suggests that the reviewer should broaden the scope and look at the role of ZEP: may be some functions relating to advocacy should be put outside ZEP.
- Objective 2 (commit ZEP's members to a common vision)
 - o The (lack of) alignment could relate to individual AC members as well as to constituency groups. It is left to the reviewer to determine what he will cover.
 - o The many efforts that members put in ZEP already demonstrate a high level of commitment.
 - o We have to avoid that the review process causes stress and that it leads to further distrust,

- The vision was discussed and written down at the ACEC away day. The external review should not get into a fundamental investigation about whether ZEP is aligned.
- This task could be done in different time.

DECISION: AC agrees to the review, its terms of reference and Tim Dixon as the leader of the review, with François Giger abstaining. Resources for this review are to be limited to what is essential.

6 TWG ME

Charles presented the draft report.

Comments/discussion:

- AC expressed its appreciation for the work done.
- It was suggested that TWG ME finds itself another name
- Clarifications of the model:
 - The model keeps existing generation capacity until End of Life of the investment. This is also true for solar capacity in Germany.
 - The model assumes absence of subsidies in the baseline scenario, and introduction of specific incentives for CCS in each of the other scenarios.
 - Negative electricity prices have an impact on the dispatch. It is unclear if the model can take this into account. The report should at least discuss potential impact.
 - The way the model deals with EPS is a simplification and does not take account of “grandfathering”. Once applied EPS will only be mandatory for new plants. This will bring fleet owners to extend the lifetime of their existing power plants, however this is not taken into account by the model. Chris Littlecott asked that with respect to EPS the model distinguishes between new plants and existing plants.
 - The model deals only with the wholesale market for electricity. In the consumer market renewables may have other drivers than financial ones. E.g. it seems that solar energy is not only driven by FiT, but also by the desire of many consumers to go green. In addition, in the consumer market indirect subsidies are paid by taking of grid charges or other cost elements of the normal end customer prices.
 - The model does not incorporate electricity storage, nor does it incorporate constraints on CO₂ storage.
 - The model does not distinguish between the costs of CCS in peak or base load. The cost data were taken from the ZEP cost report. At that time it was assumed that CCS plants would run in base load.
- Remarks on the report and the slides:
 - The comments on slide 34 (TF P&R comments) should be attributed to Kristofer Hetland and not to TF P&R.
 - The report should not equal CAPEX support to NER300 funding as NER300 is not a pure CAPEX support.
 - The report must make clear that the dispatch of power plants is a key item, also for incentive systems with capital grants. This is partly why NER300 was not a success. Before advocating another NER300-type incentive (such as suggested in the Chris Davies report) we must understand the problem.

- It should be understood that power plants that make a loss when operating won't be dispatched. Therefore the report must mention that the word "dispatch" as used in the report means that not only the power plant has priority of dispatch but also that it makes money.
- The report should make clear that the merit order is not a fixed line. There are several variables involved.
- The modelling and the report would create additional value by showing the differences between the OPEX and CAPEX of the various scenarios (e.g. are they only minor or significant). There is more value in the differences between the scenarios than there is in the absolute numbers themselves.
- It was agreed that costs should be removed from text on FiTs.
- Rose de Lannoy: the cost data are sensitive to the electricity price. She asked that this gets attention in the report.
- With respect to the chapter "Key conclusions", the paragraph on FiT's.
 - The differences between FiT and CfD seem to be small. Nevertheless this could be clarified in the report.
 - The paragraph at the bottom mentions the cost for achieving 5 GW (65.86 €/MWh for lignite etc.). It isn't clear whether this is an additional cost, whether this can be seen as the strike price and whether these costs are in line with the return from CfD as they are now implemented in the UK. Charles Soothill explained that the team is reluctant to go into the detail of comparing the numbers with the UK because it could be seen as a recommendation. Rather the modelling effort of this report should be seen as a generic effort to show the results of certain incentive schemes.
 - It is to be cross checked, why CCS on gas comes out as the cheapest option whereas current situation is that gas CCS is even less competitive than coal.

After lunch some concerns were voiced.

- There is concern about how the report in its current state will be perceived by others (policy makers and members of the environmental committee). It should be more than a nice theoretical exercise, it ought to be practically useful. For this it would be really good if it plays into the current policy space. It is essential to get CCS into the 2030 package. ZEP should be more ambitious than to have 5GW of CCS in there, so a scenario with 20 to 25GW would add much value. The report would then have to assess whether the model shows that the emissions reduction is sufficient for Europe for being on track.
- The report has to say something about access to storage. It should have a more granular story that also includes the energy intensive industry, otherwise we would be getting into a rabbit hole.
- The report should ideally show different emission reduction trajectories, preferably on a MS by MS basis.
- The report uses assumptions regarding the restrictions on nuclear, and fossil fuel. This needs clarification.
- The report should be very careful with its wording around EPS. The report should refrain from saying whether EPS is or is not useful. EPS is in general very useful in limiting CO₂ emissions. EPS could be part of the package. As UK demonstrates it should not be an EPS-alone framework.
- There is a fear that policy makers conclude from the report that CCS is a lot of hard work, still a long way away, that the deployment of CCS is not a primary concern, and that the focus of their attention could be moved towards renewables. Unless in the report the trajectory between now and 2030 is strengthened the report will shoot in our foot.
- Attention should be paid to the validation of the report. The report must show that the model is valid and that the reader can trust the results and key conclusions;
- It is important to issue the report in time;

- The report should have a disclaimer: the model depicts a simplified picture of the future and the investment parameters. That picture does not necessarily correspond with the way investors in the real world see the future investment climate. Especially assumptions on the further development of fuel and CO₂ prices will have a significant impact on investors decision. It is also important to note that different from reality the model knows in advance the future development of fuel prices and CO₂ prices, this will definitely influence the decision making.
- In general AC would like to strengthen the key messages/storyline of the report. The report should not try to argue that CCS is better. A suggestion for (part of) a storyline:
 - o neither renewables nor CCS will be financially justified as investment in the energy market given the low CO₂ price. If there were no subsidies nothing would happen;
 - o Society continues to use the renewables but the model shows there is no rationale. (unless provided by subsidies). And in the absence of subsidies no investor will enter the CCS world.
 - o After 2030 it will be different, if indeed the EUA price rises. Renewables are already anticipating this. After 2030 there will be a place for both. ZEP/CCS is looking for proposals to prepare for 2030.

Conclusion:

- If this report is to have its highest value it should be played into the Chris Davies report and the CCS-communication. It therefore needs to be completed quickly.
- The report needs to be careful, clear, definitions and model must be clearly understood.

DECISION: TWG ME is asked

- To redraft the report and present it to ACEC who will, on behalf of AC, see if comments are taken into account and approve the report.
- To develop a plan for additional work that could, in a later stage, enhance the report.

7 Taskforce Public Communications

7.1 Messaging

Shradha Bhatnagar presented the proposed messaging concept and Q&A document (slide 3 of her presentation) and asked for final approval.

Comments:

- Chris Littlecott expresses some worries that he will put in writing and send to TF PC:
 - o The messaging document still talks about demonstration programme. In UK we talk about early commercialisation programme. This is a helpful perspective that could be considered by TF PC.
 - o There are some contradictions in the text. In several paragraphs the document assumes the inevitability of using fossil fuels, whereas in other places it mentions that the use of fossil fuels will stop.
 - o The documents should show ZEP's awareness of the scientific basis of the need to reduce CO₂ emissions.
 - o The messaging document must deal with the worry of many critical readers that CCS is an excuse for continued use of fossil fuels.

- There are some recent insights that should be added to the messaging pack, such as the importance of the merit order and priority of dispatch. Chairman notes that the messaging pack will be continuously updated over time, and that these insights will be discussed, approved and added at a later stage.
- The Q&A document mentions that CCS is the only technology that cost-effectively reduce Europe's CO₂ emissions etc. it is proposed to word this more carefully: "that cost-effective reduction of Europe's CO₂ emissions is not possible without CCS"
- Message 1 of the messaging document is not correct, it should be placed in context. CCS is only essential for growth etc. in the context of climate targets.
- The Q&A document (page 3) mentions that CCS-equipped plants provide flexible back up to balance the electricity supply. It should be noted that CCS-equipped plants are not only ones to provide flexible back up.
- At the end of the Q&A document it is stated that CO₂ storage is even safe in volcanic areas. A more careful wording is proposed.

DECISION: AC asks TF PC to take the above comments into account and accepts the according update of the messaging document and the tough Q&A document as a basis for future communication,

Shradha Bhatnagar presented the proposed process and asked for approval.

Comments:

- People ask for timelines to the process;
- Some find the proposed process still too cumbersome and slow. In many cases a response should be delivered in 24 hours. For old messaging the process will definitely allow for a timely response. But for new messages it is indeed cumbersome. However, there is no alternative to the proposed process;
- We can't fully regulate the messaging in all its details. ZEP members will need trust the ones that are acting on their behalf;
- In general AC is of the opinion that the proposed process is an improvement compared to the past. It may have to be improved in a later stage: ZEP should be learning by doing.

DECISION: AC agrees with the process for approval of the messaging process.

7.2 Roadmap

Tim presented the roadmap document (in pre read) and highlighted the important aspects.

Comments

- The roadmap paper could benefit from including parts of the societal case;
- The document is written from the perspective of where we are now. It would benefit from inclusion of a picture of what a decarbonised economy in 2050 would look like;
- The roadmap does not attack the idea that many people might have that business as usual for industrial sectors is an option. They have to decarbonise. Paper should describe the pathway from 2030 and 2050;
- The paper is coherent in the way it describes the CCS projects as demonstration projects. Nevertheless, it could move to the new perspective of the projects being early commercialisation projects;

- The paper could address the top priority issue that came from the UK cost reduction taskforce: the need to reduce the capital need for transport and storage. Capture costs could be secondary in particular for some energy intensive industries.
- The document also has to be clear about the limits of the use of fossil fuels (that CCS isn't an excuse for continued use of fossil fuels).

Conclusion: when finalising the roadmap paper it should be understood that it was not written as a comprehensive story that covers all aspects. The comments above should however be taken into account either in the roadmap paper or in the societal case paper.

7.3 Societal case

Judith Kirton presented the paper that was included in the pre-read:

- The WG (ETUC, TUC, CCSA) started to work on the societal case and, as a first step, developed an internal paper that focuses on employment, skills, social benefit in industry as well as in the power sector. WG found that, apart from UK, there is relatively little material available on which the societal case could be based. There is no European wide employment impact assessment. DG ENER is doing an analysis of the energy roadmap 2050, which also assesses the employment impact, but the results aren't yet available. The WG therefore decided to limit itself to giving the recommendation to the AC:
 - o ZEP should invite the commission to jointly carry out an employment study. It should address employment retention, job creation, social added value of CCS deployment
 - o More interestingly, ZEP should also carry out regional case studies in which the effects of CCS development in existing regions are described. Get actors at regional levels to talk about CCS and write down the societal case. Yorkshire could be an example. In this region an industrial fossil fuel cluster is developing, the societal case of which could be described. Similar regions around Europe should be identified for which a case study could be written. The added benefit of this is that ZEP creates a new momentum (inside as well as outside of ZEP) and that it creates a set of regional ambassadors that could take the dialogue to member state level. It is also a way of giving local actors better understanding of employment and social figures. Judith invites AC to name regions for which a case study would be feasible.
- Jeff Chapman explained in more detail the development of the social case in the UK. The energy technologies institute has developed an energy systems model which is very good and shows that CCS is a cost effective solution. The results of the model are fed into another model of the Cambridge econometrics institute that analyses the macro-economic impact. The results are positive, however much emphasis is put on employment effects and the associated impact on the reduction of unemployment benefits. The British treasury is however more interested in the least cost route for a low carbon economy. CCSA and TUC have now asked a British consultancy to work that out. The results should be available shortly.

Comments:

- Gardiner noted from a meeting with UK treasury that they had a particular perspective on the value of technologies. It all depends on the lens you choose to use (a budget lens, an exchequer lens). He concluded from the conversation that competitiveness might be the best aspect on which CCS (and other technologies) should be compared. Governments will be sensitive to jobs going abroad, the impact on export. Gardiner is therefore in favour of adjusting the ToR for the societal paper so that it does not overly focus on job creation and puts competitiveness first;

- Judith underlined that there are no big expectations about the jobs that CCS creates by itself but that CCS is an absolutely crucial technology to maintain competitiveness for energy intensive industries. This point of view could help a lot with social acceptance at regional level, makes the importance of CCS a lot more tangible;
- Peter Tjan noticed that convincing politicians is different from convincing regional actors. We should do both;
- Pedro Otero: The Spanish platform has done a CCS employment study. He will send that report.

DECISION: AC agrees to the way forward as proposed by Judith Kirton and asks AC members and others to bring forward candidates for a case study.

7.4 OpEd

The OpEd was sent to AC for information. No discussion

7.5 UK parliament call for evidence

ZEP's submission was sent to AC for information. No discussion

7.6 General Assembly 2013

Shradha presented the proposal for the General Assembly.

Comments:

- Graeme Sweeney made the point that this GA is a demand driven event. The concept is very different from previous events, this will not be an event in which ZEP's reports are central, rather it is an event in which we endeavour to create a dialogue with MEP's, where ZEP stands in the fire. This will be an event in which not everyone attending will be aligned with us, and at which we will have to have our messages crystallised and convincing.
- Because of engaging with Jerzy Buzek and other MEP's we are bound to their timescales.
- ZEP's key note address at the event will be a super summary of the ZEP strategy.
- The GA is very timely in the run up to actual energy conference.
- CG hasn't had the chance to see the concept and discuss it. Therefore several questions about the concept arose during the AC discussion. They couldn't all be answered hence TF PC and CG will have a telephone conference after the AC meeting to discuss.
- There is no better timing.
- The question was raised whether we have a high enough profile of non-believers. ZEP could look for unusual suspects. Hedegaard is a good start. She won't say that CCS is her dream.
- There are doubts about the composition of the 2nd panel. It is suggested to get someone from DG ENTenterprise
- There is another question about attracting audience. It is suggested to attract climate sceptics.

DECISION: The general concept for the General Assembly is endorsed by AC. The composition of the panels will be reviewed.

8 WG Other Industries

Jonas explained the progress made with inviting other industries to ZEP.

- The report “CCS in EU energy intensive industries” that was approved has been published, it was well received. The International cement review printed the cement section.
- The group of industries that collaborated in the report agreed that there is a need for cooperation.
- Jonas is not yet clear about what can be done:
 - o The scope for attracting steel industry is limited. They have their own platform (ESTEP). Cooperation between ZEP and ESTEP is the likely modus for getting the steel industry involved in ZEP.
 - o The cement industry does not have its own platform. They may not be ready for joining ZEP but are interested in cooperation.
 - o Chemical industry: Jonas is uncertain about who would be interested.
- Cooperation with energy intensive industries is not sufficiently mature to create momentum. Jonas asks ZEP for:
 - o its vision on inclusion industrial members. Storage issue could be key to cooperation.
 - o capacity. In the past WG Industry had active members such as Tore Torp who have stepped down. Bellona has limited capacity. Additional capacity is needed in ZEP to create the required momentum.

Comments:

- Attention should be given to the name of ZEP (P stands for platform, not for power industry) and the WG other industries (avoid “other”, think of a new name). Purvis proposes “Emissions intensive industries”;
- It is important for ZEP to internalise energy intensive industries. It is not only that ZEP should go where the money is;
- Two actions need to be undertaken:
 - o We have to write down a vision that clearly captures what CCS in energy intensive industries is all about. This vision needs to be delivered a.s.a.p.,
 - o We have to write down the value proposition. Why would these people want to be with us. Elements of this value proposition could be the clustering, the storage issue and H2020.
- With respect to specific actions towards industry groups:
 - o Steel platform: let’s create platform to platform collaboration.
 - Purvis (GCCSI) mentions that some steel industries might be interested in the steel needed for transport pipelines.
 - Torsten Buddenberg: the steel industry thinks about reuse. Then there is the issue of leakage.
 - Judith: ESTEP has a long history of CCS. They are now depressed because of the Florange set back. Set up a small meeting, ZEP members and ULCOS group. Hisarna plant in Ijmuiden is actually continuing research
 - Giger: will contact Jean Pierre Birat
 - o Cement: make a value proposition
 - o Petrochemical industry: Graeme will take action
- General remarks:
 - o Gardiner is asked to ensure that the development of the business case for storage incorporates the interest of emission intensive industries

- There are also divisive issues. While ZEP would like the EUA price to be high energy intensive industries will be against it, unless there are import duties.
- Industries may be hesitant to team up with ZEP, because it could be seen as an admission that they have “a CO₂ problem”. Therefore the first contact is important.
- Chairman asks AC members for additional resources.

DECISION: WG Emissions Intensive Industries have to write down a vision and a value proposition.

9 Taskforce Technology

Dirk informed AC about recent developments of the integrated roadmap (part of SET plan).

- He referred to the process that was outlined by Evangelos Tzimas (JRC) at the last AC meeting in June.
- H2020's Work Programme 2014-2015 does not mention concrete challenges and actions. The integrated roadmap that is now being developed aims to change that. A Coordination Group has been nominated that, in a short time span, will derive the main challenges from a vision (roadmap 2050) after which a Working Group will identify the required actions. In this integrated roadmap CCS is in a prominent position.
- ZEP's involvement (Dirk Goldschmidt, Niels Røkke, Armin Wauschkuhn) allows TFT to bring the R&D topics of ZEP's R&D roadmap into the integrated roadmap. Lot of work for the next weeks which may delay other work of TF T.

Wolfgang Rolland informed AC about the CGS report “opportunities for CO₂ storage pilots in Europe”.

- Report came out of a joint initiative of TFT with CGS Europe. Both worked on the topic, however the results were published separately because the time schedules did not match.
- The CGS report is a good piece of work. It could be characterised as a summary of expressions of interest. The list has a wide geological, geographical spread, however some projects are missing, mainly because only the members of CGS were involved in the effort. Had ZEP members also been involved, the list of projects would have been different.
- Therefore he recommends to AC that ZEP should not take responsibility, but should welcome the paper.

DECISION: AC welcomes the CGS report “opportunities for CO₂ storage pilots in Europe Business case for storage and asks TFT to work on a joint position paper with a view for later on.

10 Business case for storage

Gardiner Hill presented the ToR for ZEP's Temporary Working Group Storage (TWGS). It was developed by him and Tim Bertels. A chair of TWGS has been identified: Owen Tucker of Shell. Gardiner asked AC for approval.

Comments:

- The storage part to be finished by December, after that work may be carried out on the transport side,
- On page 2 of ToR, the 2nd graph suggests that all CO₂ from temporary utilisation goes to storage. It is realistic that some of it might actually be emitted, hence another line should be added.
- On page 3, the graph, there is a mention of a capacity payment to storage provider. It seems premature to assume that there is such a payment, this is what the study has to find out,
- This looks like a strong group.
- Chris Littlecott mentioned the recent conference at the Edinburgh university. Their work could be seen as a precursor of a business model. It might be useful that they participate.

DECISION: AC agrees to the ToR for the work of ZEP's Temporary Working Group on Storage (TWGS) and to the composition of the team to carry out the work.

11 Taskforce Policy&Regulation

Chairman introduced the subject of the recently issued draft Chris Davies Report which is now in its commenting phase. ZEP is asked to comment. A hard copy (distributed at the AC meeting) is the most recent version of the Chris Davies report available.

Jonas Helseth presented to AC the changes that TF P&R proposes and asked AC for comments / approval. TF P&R will then redraft ZEP's response and finalise. There is urgency: Chris Davies asks for clear support. Momentum and confidence are at stake. Therefore ZEP has to deliver. The redraft is to be available by Sunday, in time for the MEP breakfast on Tuesday.

Comments:

- In general the Davies report is recognised as a well written piece of work.
- ZEP should restrict itself to the key comments.
- It is suggested to add messages on EPS that we take from the recent draft TWG ME report. Others say that any serious comment on EPS could spark much resistance.
- Nils Røkke would have liked to see that the Davies report assigns a leading role to Member states. He is asked to send text proposals to TF P&R.
- Absence of CCS in the 2030 framework should be priority comment.

DECISION: ZEP will submit comments to the draft Chris Davies report. AC members are asked to send comments a.s.a.p. so that a redraft can be developed by TF P&R by Sunday. ACEC is asked to approve on behalf of AC.

12 CCS EII

On behalf of Gardiner Gill Hermione St. Leger informed AC about progress made with CCS EII.

- Implementation plan 2013-2015:
 - o The CCS EII team has finalised the Implementation plan (IP) and now asks ZEP to approve.
 - o Because the IP was received by ZEP only days before the AC meeting there was no time for AC to prepare the discussion and decision.

- Therefore AC is asked to send comments on the implementation plan (to Gardiner and the secretariat). ACEC will then be asked to approve on behalf of AC.

DECISION: ZEP's participation in CCS EII is seen as a great opportunity to engage with Member States. We will therefore make CCS EII a standing item at AC meetings.

13 Decisions

DAC 36.1: AC appoints Claudia Tomescu as co chair of TF D&I.

DAC 36.2: AC approves the ZEP CCS directive letter and the London Protocol letter.

DAC 36.3: In the future AC will be informed of the addressees of the letters that it is asked to approve.

DAC 36.4: ZEP will advise EC on the topic of cooperation with South Korea.

DAC 36.5: AC agrees to the review, its terms of reference and Tim Dixon as the leader of the review, with François Giger abstaining. Resources for this review are to be limited to what is essential.

DAC 36.6: TWG ME is asked:

- To redraft the report and present it to ACEC who will, on behalf of AC, see if comments are taken into account and approve the report
- To develop a plan for additional work that could, in a later stage, enhance the report.

DAC 36.7: AC agrees with the process for approval of the messaging process.

DAC 36.8: AC agrees to the way forward as proposed by Judith Kirton and asks AC members and others to bring forward candidates for a case study.

DAC 36.9: The general concept for the General Assembly is endorsed by AC. The composition of the panels will be reviewed.

DAC 36.10: WG Emissions Intensive Industries have to write down a vision and a value proposition.

DAC 36.11: AC welcomes the CGS report "opportunities for CO₂ storage pilots in Europe Business case for storage and asks TFT to work on a joint position paper with a view for later on.

DAC 36.12: AC agrees to the ToR for the work of ZEP's Temporary Working Group on Storage (TWGS) and to the composition of the team to carry out the work.

DAC 36.13: ZEP will submit comments to the draft Chris Davies report. AC members are asked to send comments a.s.a.p. so that a redraft can be developed by TF P&R by Sunday. ACEC is asked to approve on behalf of AC.

DAC36.14: ZEP's participation in CCS EII is seen as a great opportunity to engage with Member States. We will therefore make CCS EII a standing item at AC meetings.

Annex I, attendees

Meeting name	Surname	Name	Invitation accepted
AC36	Buddenberg	Torsten	Y, AC, replaces Kakaras
AC36	Constantin	Carmencita	Y, AC
AC36	Copin	Dominique	Y, AC, replaces Moutet
AC36	Cortes-Galeano	Vicente	Y, AC
AC36	De Lannoy	Rose	Y, AC
AC36	Demarcq	François	Y, AC
AC36	Dessens	Stan	Y, AC
AC36	Duggan	Jill	Y, AC, after 14:00 hrs
AC36	Elsen	Reinhold	Y, AC
AC36	Goldschmidt	Dirk	Y, AC, replaces Vortmeyer, TFT
AC36	Hauge	Frederic	Y, AC
AC36	Hill	Gardiner	Y, AC
AC36	Kirton Darling	Judith	Y, AC
AC36	Lima	Kai Bjarne	Y, AC
AC36	Lindgren	Goran	Y, AC
AC36	Littlecott	Chris	Y, AC
AC36	Martinez Jubitero	Jorge	Y, AC
AC36	Otero	Pedro	Y, AC
AC36	Radgen	Peter	Y, AC, replaces Zizow, TFDI
AC36	Røkke	Nils	Y, AC
AC36	Sweeney	Graeme	Y, AC
AC36	Szynol	Kazimierz	Y, AC

AC36	Tjan	Peter	Y, AC, replaces Gillies
AC36	Bennett	Simon	Y
AC36	Bergmann	Heinz	Y
AC36	Bertels	Tim	Y
AC36	Bhatnagar	Shradha	Y
AC36	Castilla Garcia	Nelly	Y, TFPC
AC36	Chamberlain	John	Y
AC36	Chapman	Jeff	Y
AC36	Coda	Beatrice	Y, EC, leaves at 11:45
AC36	Cussagnet	Pierre-Marie	Y
AC36	Eldering	Lamberto	Y
AC36	Giger	François	Y
AC36	Helseth	Jonas	Y, TFPR, BioCCS, WGOI
AC36	Hetland	Kristofer	Y, TFPR
AC36	Honkasalo	Niina	Y
AC36	Kougionas	Vassilios	Y, EC
AC36	Kraus	Nicolas	Y
AC36	Langlais	Juliette	Y, TFPC
AC36	Pearson	Ivan	Y
AC36	Purvis	Andy	Y
AC36	Rolland	Wolfgang	Y
AC36	Scowcroft	John	Y
AC36	Skogen	Tone	Y, GG
AC36	Soothill	Charles	Y
AC36	St. Leger	Hermione	Y
AC36	van der Lande	Robert	Y
AC36	van der Panne	Gert-Jan	Y