

ZEP Advisory Council Meeting #46

Minutes of meeting

Date and time: 16 March 2016, 10.30 – 17.30 hrs.
Venue: Centre Borchette
Status: To be approved by AC

The list of attendees is attached as annex II.

1 Introduction and aims

Chairman opened the 46th meeting of the ZEP Advisory Council.

- He welcomed attendants (see annex I) and concluded that AC is quorate;
- Carmencita Constantin and François Demarq have stepped down as a member of the ZEP AC. The AC thanks them sincerely for their efforts and commitment that they have given to ZEP in the years in which they were member.

AC adopted the Agenda for AC46.

AC approved the minutes of AC45.

AC discussed the CCS developments and ZEP Q1 activities, see the pre read documents. The key points addressed at the ACEC away day will be discussed by AC in agenda points later in the meeting, in particular:

- The financial framework for 2016/17;
- In depth review of ZEP's strategy and priorities for 2016/2017;
- As a part of that: what role should ZEP play in the development of a PCI project
- the importance of reconnecting with the hydrogen society.

2 Where we are

Secretariat summarized the decisions taken at the previous meeting of the advisory Council (see pre-read) and the forward view (see pre-read).

ACTION: on 31 March EC is expected to launch a public consultation on the integrated Strategy on Research, Innovation and Competitiveness. NWPE will prepare ZEP's input.

3 Report European Commission

Vassilios Kougionas updated AC about recent developments within DG RTD, see the presentation shown at the AC meeting. The presentation that he gave to the ZEP Government Group will be shared with the AC.

- CCS is one of 10 priorities mentioned in the SET plan communication;

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- Important activity at this moment is the formation of the ETIP's;
- The process:
 - o ZEP can start on its conversion to an ETIP on the basis of the issues paper from EC;
 - o This issues paper was originally planned to be sent at the end of May but this will be accelerated to early May;
 - o At present the paper is in inter-service consultation (JRC, GROW, CLIMA, ENER, RTD);
 - o ZEP will have 2 to 3 weeks to respond to the issues paper;
- The contents of the issues paper: targets and priorities, with time lines, updated KPIs.

Michael Schuetz updated AC about recent developments within DG ENER

- The deadline for contributions to the public consultation on the Energy Union Governance is 8 April;
- CLIMA is reviewing article 33: CCS readiness requirements. ICF is doing a study on this. The results are expected around the summer break. No extensive stakeholder outreach will be undertaken. **ACTION: NW PE to develop ZEP's view and input to the review of the CCS readiness requirements.**
- With respect to the Trans European Networks (TEN) the first meeting of the thematic group on CO₂ infrastructure has taken place. One should realize that TEN is designed for electricity infrastructure and that the inclusion of CO₂ infrastructure is a stretch. Projects will need explicit support from member states;
- JRC is working on a storage atlas, to be available around summer;
- ROAD: some small hurdles still remain, but it looks quite promising. Norway, Germany and Netherlands are still on board. Other MS are invited to pledge funding. FID is expected to be taken later this year. Hurdle appears to be that the Dutch law does not allow permits for EGR and storage. NL needs to change its law;
- Don Valley: Its continuation depends on the prospect of obtaining a CfD
- The CCS project network initially consisted of the EEPR CCS projects. Recently the White Rose project and the Peterhead project joined, however those CCS projects have been cancelled. Hence the concept of an PN needs to be reconsidered. Possibly the project network could become the European hub for global knowledge sharing. The project network will have a knowledge sharing event on 12, 13 May, back-to-back with the CO₂ Geonet conference in Venice. A continuation of the CCS project network will be financed from the 2017 Work programme of H2020. In the fall of 2016 EC will reflect on what such a continued project network should look like, considering the fundamentally changed circumstances;
- The heating&cooling communication has little on CCS. Some of its round tables should be a forum to discuss the role of CCS;
- Innovation fund: It could include CCS. ZEP should be vigilant and ensure that its views are communicated to the key stakeholders
- In general for the long term CCS seems to be solidly anchored in policy. But in the short term ZEP should actively advocate CCS in order to avoid that it is squeezed out. EC resources are also thin. Zuberec, Velkova, Schuetz, Kougionas are the key persons, they only have a part of their time available for CCS;
- ZEP's work on CCS clusters and CCU should be input to a new meeting with MEP's, the European Commission and memberstates. ZEP should show the opportunities and limits. Such a meeting could be a mixture between advocacy and a seminar;
- The innovation fund should focus on clusters. Objective should be to have projects ready in 2020 so that they can receive funding in 2021.

4 ZEP's Finances

The ZEP annual report was discussed by the Advisory Council. **DECISION: AC approves the annual report 2015.**

AC discussed the financial framework for 2016 and 2017. It was noted that, with respect to the finances, ZEP was not run in 2015 in a sustainable manner. This is turned around by the financial framework for 2016 and 2017. It is such that at the end of 2017 ZEP will no longer have a negative financial position.

DECISION: AC approved the proposed financial framework for 2016 and 2017.

AC discussed the financial situation per 1 March (see pre read). Chairman informed AC that the contract for the EC grant for 2015 has been signed, so that the grant can be recognized for revenue. Consequently ZEP-C will commit to signing the contracts with its service providers for 2016Q1.

ACTION: AC agrees to the signing of the service contracts for 2016Q1 and mandates ACEC to negotiate the terms for service provision for 2016Q2.

5 Priorities for 2016 and 2017

5.1 Proposed priorities

Nils presented the paper "revitalising ZEP" (see pre read). Comments:

- AC agrees that there is a need to make investible the asset class of infrastructure and storage of CO₂;
- The question was raised whether a focus on a PCI project is sufficient or whether ZEP should perhaps focus on the more fundamental issue of making transport&storage infrastructure projects investible for public-private partnerships by developing the investible case;
- A logical choice for getting a transport&storage project going is to base it on investments already made: already 50M€ was spent on characterization of an offshore storage field in the southern North Sea. Also significant amounts of money have been spent on the characterization of Golden Eye.
- Such a PCI project cannot be limited to transport&storage alone. The whole chain needs to be developed for it to succeed;
- There is skepticism towards a "single-egg" PCI-strategy. It is considered risky. It might be better to concentrate on a set of clusters;
- ZEP should recognize its limited capabilities. ZEP does not have system operators nor countries as members. Leading such an effort could be overbearing for ZEP.
- It would therefore be better that ZEP leverages activities of others;
- ZEP could make use of existing structures. National Grid, the lease holder of the investment in the storage field in the southern North Sea, has resources that will be terminated by the end of April.

Against the above background the 2016 priorities as presented in the pre read were discussed by AC:

- Slide 2 (re-orientation of ZEP): rephrase the objective. ZEP should aim to create sustainable industrial regions by developing a hubs & clusters CCS infrastructure that

- enables a landing of industry in a low-carbon world. Objective: show that CCS infrastructures can be made investible and create the confidence;
- The question then arises whether the nine priorities are really the ones delivering that objective of sustainable industrial areas to the cities and regions;
 - Priority 2.1 (PCI project) To develop a project is overly ambitious for ZEP even though securing a PCI project for CCS is crucial. ZEP could however prepare the grounds by bringing all the elements together for a project developer with the required resources. Priority 2.1 should be reformulated as a priority that aims to get “boots on the ground”. The priority should not necessarily be limited to one project but aimed at creation of a hub-and-cluster structure, a set of projects. Plurality and flexibility are required;
 - Priority 2.2 (ME5): Demonstrate how CCS infra can be made investible;
 - Priority 2.3 (engage with member states and regions): national climate plans could be the opportunity for ZEP to liaise with MS
 - Priority 3.2 (ETS reform): ZEP should focus its ETS reform efforts on the topic of the innovation and modernization fund;
 - Summary:
 - o The current draft of the ZEP objective and the priorities does reflect part of the above conversation. It does recognise the need to focus on clusters, and should work towards more than a single CCS-project/cluster;
 - o ZEP should however continue to work on technology development. Usage is essential for sustainable industry. also bioCCS should be on the list because a 1.5C temperature rise world could not be achieved without it;
 - o The priority “Extend ME4” should be reformulated. It should answer the question: what are the policy instruments required to make CCS clusters investible;
 - o **ACTION: the ZEP Objective/priorities will be rewritten by a team, consisting of Ward, Chris, Owain and Filippa and sent to AC. Andy will observe.**

5.2 Collaboration

AC discussed the need for organisations active in the field of CCS to increase collaboration. GCCSI (Andy Purvis) and CCSA (Luke Warren) agreed and confirmed their willingness to discuss this. **ACTION: ZEP will secure co-operation against ZEP priorities, Graeme and Gardiner are mandated to set this in motion.**

6 Projects

Professor Bor Kae Chang of the National Central University of Taiwan discussed with the AC possibilities for cooperation. To this end he presented a number of CCS-projects on which Taiwan is already working: capture projects, in particular chemical looping, sequestration and utilization of CO₂.

ACTION: ZEP will develop a position paper for cooperation with Taiwan. The presentation that was shown by prof. Chang will be distributed among ZEP members.

7 Networks and Government Group

Filip Neele and Tim Bertels provided an overview of the progress of the various work streams of the networks, see pre read.

Tony Ripley reported about the discussion that the Government Group had on 15 March about the position of the government group in the ETIP. Key messages:

- Government Group members appreciate to have a space to discuss CCS, separate from the ZEP AC meeting. GG-members may have little appetite for attending AC meetings;
- With respect to ETIP-ZEP's objectives: the hierarchical position of current GG-members might not be what ETIP-ZEP needs;
- It isn't yet clear to GG how it should integrate in the ETIP-ZEP. To have GG-members participate in the AC meetings may not be a sustainable formula. ZEP should discuss with GG how to integrate.

ACTION: ZEP (WG ORG) will organise a conversation to find and agree a better modus operandi that brings GG and AC closer together. Charles will participate.

8 Temporary working groups

8.1 BioCCS:

AC discussed the new version of the BioCCS report. Comments:

- Some of the messages of the report should be rephrased in order to ensure that they land well with the targeted audience. This is best done with the help of ERG. ERG should take the messages of the BioCCS report forward and fit them into the ZEP messaging document;
- The report should make reference to the recently published review on carbon depth of Bio-energy. This review is expected to strongly affect the policy on biomass.

DECISION: AC approves the BioCCS report and asks that ERG helps with the editing. Final version of report to be presented in June. In due time ZEP will decide whether a new work stream should be started on this topic.

8.2 CCU

Filip Neele pointed out that the report has some slight changes compared to the version that was presented at the previous AC meeting.

- Some of the figures were already used by Nils Røkke in his presentation in Doha. He will share that presentation;
- The report will be finalized with the help of ERG. The key messages of the report should be included in the executive summary;
- ZEP will ask for feed back from EC, to see if it fits the need of EC.

DECISION: AC adopts the report on CCU

8.3 Future CCS technologies

Markus Wolf informed AC about the progress. The work is a bit behind schedule because of the intense discussions in the TWG, the need to reorganize the report and the need to mobilise new expertise for capture technologies. Comments from AC:

- Filippa and EERA will review the report and provide feed back;
- Report will be submitted to AC at the AC meeting of June.

Secretariat will forward the slides used by Markus to AC.

8.4 Fast Track Storage

Filip presented the ToR for fast track storage. Comments:

- Please take account of the work done by the UK Cost reduction taskforce that has done a lot of work as described in this ToR..

DECISION: AC approves the ToR for the work on fast track storage

8.5 Clean Hydrogen

Filip presented the ToR for the work on Clean Hydrogen. The work will be led by Claude Heller of Air Liquide. Comments:

- In the UK a lot of work was done on this topic. TWG is asked to make use of this and establish contact with “innovate UK”;
- The work should consider domestic heat.

DECISION: AC approves the ToR for the work on Clean Hydrogen.

8.6 ME5

Charles proposed Terms of reference for a developing a model that proposes the most economical way to achieve European targets for emissions and that includes regulation for the Electricity, Cement, Steel and Refining industry with their emissions of CO2 between now and 2050. It should convey the message that contrary to a popular misconception, CCS is not at all expensive.

Comments:

- AC appreciates the ambitious and fresh approach, in particular the integration of industry and power;
- JRC is considering such a model, so once ZEP goes ahead with this model it should check with JRC;
- TNO is involved in the Edgar project that builds a similar model. Philip Neele will send Charles information on that;
- The fast roll out of PV in Germany might be a case to test such a model;
- Jumping back to a regulated market may not appealing to many people. The liberalized electricity market is generally accepted, it may be very difficult to get acceptance for ideas that assume that the market mechanisms do not deliver and that promote regulation. It might be seen as a Don Quichotte model that fights windmills;
- The modeling should be accompanied by a logic for creating a market for new investments in fossil fuel power that is currently absent. It may therefore be important to look at financial instruments that will actually incentivize investments in abated fossil fuel use;
- The model could help build the case for CCS in member states and clusters.

DECISION: Charles will take the comments on the ToR for ME5 into account and will bring the ToR to the ACEC for approval.

8.7 T&S2

Owain Tucker presented the draft report on CCS clusters. Comments:

- GCCSI has published a report for its members on this topic and would be interested in collaboration on this topic;
- The report should explain the limitations of the report.

DECISION: the document on clusters will get its final editing, will then be discussed with DG ENER and will then be presented to the cabinets and DG REGIO. The documents won't be published as a report but as a working document that will be elaborated at a later stage.

Next step would be to scope out the funding needed to get the development of clusters going.

8.8 TWG P&F

ZEP position on innovation and modernization funds (included in the pre read) was discussed by the AC. Comments:

- The paper must make clear at whom it is aimed: EC, European parliament, and/or council;
- On page 2 the document states "ZEP believes that a financial instrument might be a better instrument to secure financial support for projects and involve the private sector". Maria suggests that this be reconsidered and suggests to say that grants would be needed, in combination with other financial instruments;
- With respect to the paragraphs on ranking: ZEP should review this text and possibly add an example;
- With respect to allocation/earmarking of money to CCS or renewables is a crucial element: The document does give some hints. ZEP's view on an approach could strengthen the document;
- Key question is about the role of Member States. The paper could also be more explicit about this.

DECISION: AC approves the ZEP position on innovation and modernization funds on the condition that the remarks of Maria Velkova are taken into account.

8.9 CCS and Enll

AC discussed the Terms of reference for the work to be done on CCS for Enll.

Comments:

- UK government has published decarbonisation roadmaps.
- The ToR should link to idea of driving cost reduction via hubs and clusters. How can we help the energy intensive industries? By offering plug and play transport and storage. The work should therefore not be limited to just a technical review of cost but should consider the broader picture: CCS for Enll operating in clusters.

DECISION: AC agrees with ToR for the work on Enll with the above comment, and agrees to postpone the start of the study to Q3.



9 ERG

Marika steps down as cochair of ERG. She will be replaced by Jonas. AC agrees to this change and thanks Marika for all the work that she has done. Mark presented the work plan of ERG. AC agreed to the work plan. It will be important for ZEP to secure the position of CCS in the innovation and modernization fund.

DECISION: AC agrees to use the support of Weber Shandwick for developing and implementing advocacy activities towards the innovation & modernization fund.

Annex I, actions and decisions

ID	what	description	status	owner
1	Action	NWPE will prepare ZEP's input for the public consultation on the integrated Strategy on Research, Innovation and Competitiveness.	pending	NWPE
2	Action	NW PE to develop ZEP's view and input to the review of the CCS readiness requirements.	pending	NWPE
3	Decision	AC approves the annual report 2015		
4	Decision	AC approved the proposed financial framework for 2016 and 2017		
5	Action	ACTION: AC agrees to the signing of the service contracts for 2016Q1 and mandates ACEC to negotiate the terms for service provision for 2016Q2.	pending	
6	Action	The ZEP Objective/priorities will be rewritten by a team, consisting of Ward, Chris, Owain and Filippa and sent to AC. Andy will observe.	pending	Ward, Chris, Owain, Filippa
7	Action	ZEP will secure co-operation with other organisations against ZEP priorities,	pending	Graeme, Gardiner
8	Action	ZEP will develop a position paper for cooperation with Taiwan. The presentation that was shown by prof. Chang will be distributed among ZEP members.	pending	NWT
9	Action	ZEP will organise a conversation to find and agree a better modus operandi that brings GG and AC closer together. Charles will participate.	pending	WG ORG
10	Decision	AC approves the BioCCS report and asks that ERG helps with the finalization. Final version of report to be presented in June. In due time ZEP will decide whether a new work stream should be started on this topic.		
11	Decision	AC approves the report on CCU		
12	Decision	AC approves the ToR for the work on fast track storage		
13	Decision	AC approves the ToR for the work on Clean Hydrogen		
14	Action	Charles will take the comments on the ToR for ME5 into account and will bring the ToR to the ACEC for approval.	pending	Charles Soothill
15	Decision	the document on clusters will get its final editing, will then be discussed with DG ENER and will then be presented to the cabinets and DG REGIO. The documents won't be published as a report but as a working document that will be elaborated at a later stage		



16	Decision	AC approves the ZEP position on innovation and modernization funds on condition that the remarks of Velkova are taken into account.		
17	Decision	AC agrees with ToR for the work on EnII and agrees to postpone the start of the study to Q3		
18	Decision	AC agrees to use the support of Weber Shandwick for developing and implementing advocacy activities towards the innovation & modernization fund		

Annex II, attendees

Meeting name	Name	Surname	Invitation accepted
AC46	Tim	Bertels	Y, AC
AC46	Didier	Bonijoly	Y
AC46	Bor Kae	Chang	Y
AC46	Carmencita	Constantin	N
AC46	Mark	Downes	Y
AC46	Lamberto	Eldering	Y, AC, replaced Skalmeraas
AC46	Ward	Goldthorpe	Y, AC
AC46	R Stuart	Haszeldine	N, replaced by Parmiter
AC46	Frederic	Hauge	N
AC46	Jonas	Helseth	Y, AC, replaced Hauge
AC46	Gardiner	Hill	Y, AC
AC46	Emmanuel	Kakaras	Y, AC, in the afternoon
AC46	François	Kalaydjian	Y, AC
AC46	Emmanuel	Kerrand	N
AC46	Vassilios	Kougionas	Y
AC46	Chris	Littlecott	Y, AC
AC46	Filip	Neele	Y
AC46	Józef	Niemiec	N
AC46	Philippa	Parmiter	Y, AC, replaced Haszeldine
AC46	Andy	Purvis	Y
AC46	Christoph	Reissfelder	Y
AC46	Tony	Ripley	Y
AC46	Nils	Røkke	Y, AC
AC46	Michael	Schuetz	Y
AC46	Olav	Skalmeraas	N
AC46	Charles	Soothill	Y, AC
AC46	Graeme	Sweeney	Y, AC
AC46	Kazimierz	Szynol	N
AC46	Owain	Tucker	Y
AC46	Mart	van Bracht	N
AC46	Robert	van der Lande	Y
AC46	Gert-Jan	van der Panne	Y, in the morning
AC46	Maria	Velkova	Y, in the afternoon
AC46	Luke	Warren	Y
AC46	Markus	Wolf	Y, by telephone in the afternoon