



## ZEP Advisory Council 50

### Draft Minutes

#### Attendance

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##### Advisory Council members

Lamberto Eldering (alternate)	Statoil
Angus Gillespie	Shell
Ward Goldthorpe	Sustainable Decisions
Jonas Helseth (alternate)	Bellona
Gardiner Hill	BP
Emmanouil Kakaras	Mitsubishi Hitachi Power Systems Europe
Rob van der Meer	HeidelbergCement
Philippa Parmiter (alternate)	Scottish CCS
Nils Røkke	Sintef
Charles Soothill	ZEP Vice Chairman
Graeme Sweeney	ZEP Chairman
Ton Wildenborg (alternate)	TNO

##### Observers and other attendees

Ruta Baltause	European Commission
Sonia Baron	EU Turbines
Thomas Berly	IEA
Anne Margrete Blaker	Gassnova
Didier Bonijoly	BRGM
Gerdi Breembroek	Netherlands Enterprise Agency
Marie Bysveen	Sintef
Niels Peter Christensen	Gassnova
Patrick Clerens	EPPSA
Dominique Copin	Total
Eric De Coninck	Arcelor Mittal
Mark Downes	Shell
Charlotte Elvsaas	The Norwegian Ministry of Petroleum and Energy
Arthur Heberle	Mitsubishi Hitachi Power Systems Europe
Giorgi Komakhidze	EPPSA
Vassilios Kougionas	European Commission
Caterina de Matteis	IOGP
Jean-Xavier Morin	CO2 - H2
Filip Neele	TNO
Andy Read	ROAD
Constantin Sava	National Institute of Marine Geology and Geoecology, Romania
Stig Svenningsen	The Norwegian Ministry of Petroleum and Energy
Silvia Vaghi	GCCSI
Peter Zweigel	Statoil

##### ZEP Secretariat

Harriet Howe	CCSA
Theo Mitchell	CCSA
Luke Warren	CCSA



**Comment [hh1]:** I arrived a bit late so I missed this part, please let me know if anything else needs to be added.

### ***Item 1: Introduction***

The AC adopted the agenda for the meeting and approved the minutes of AC49.

The Chair introduced the meeting and provided an update on his external engagement activities.

### ***Item 2: Secretariat update***

Luke Warren (LW) provided an update on the ZEP Secretariat, in addition to welcoming Angus Gillespie as a new Advisory Council member. At the meeting there were two further nominations - Constantin Sava (National Institute of Marine Geology and Geoecology, Romania) and Allard Castelein (Port of Rotterdam) – with both appointed to the Advisory Council, following a ballot taken during the break.

LW then gave the ZEP-C finance update, including an update on the ZEP website handover to a new and cheaper provider following discussions by the ACEC.

LW informed the meeting that the Secretariat now intends to release the 2018 financial plan in June this year, rather than in September. This will also be influenced by the 2017 priorities determined at the ACEC away day. LW also provided an update on the situation regarding membership, informing the meeting that EPPSA members will be unable to support ZEP in 2017.

Gerd Breembroek (GB) provided an update of the activities of the ZEP Government Group, which met on 2<sup>nd</sup> March. At the last meeting it was agreed that GB would continue to have the role of Permanent Observer to the AC. Also discussed was the ongoing role of the Government Group, including potentially merging with the SET-Plan TWG9 into a single permanent group.

### ***Item 3: Presentation on EC perspectives on CCU***

Ruta Baltause (RB) presented slides providing an overview of the Commission's current perspectives on CCU, particularly regarding low-carbon transport fuels. From January 2021 suppliers will be required by Member States to provide a minimum share of energy from advanced biofuels, with the commission currently looking into incentives and producing a market on the demand-side. This will include the Fuel Supplier Obligation, which will ensure that the necessary investments are made. Work is being undertaken on the calculation of emissions from fossil fuels, with a bonus given where fossil fuel CO<sub>2</sub> is replaced in the energy and transport sector.

One of the main points raised following the presentation focused on the definition of waste processing gas and exhaust gas, referred to in the proposals. RB responded that the focus was currently on classical examples, for example from steel production, where the waste gas could be used instead of being emitted. In response to this answer it was noted that these gases are not normally released, but are burnt to produce electricity and that replacing this electricity for some countries could have a negative impact on CO<sub>2</sub> mitigation. RB responded to this comment that only renewable forms of electricity would be incentivised, with the 2 objectives post-2020 being the diversification of fuels, and incentives for capturing CO<sub>2</sub> which would otherwise be emitted.



It was suggested that further clarification and refinement of the LCA would be needed, to which RB responded that now would be the right time to engage on this issue as the data is required in March, with discussions regarding CCU to also be taken into account.

#### ***Item 4: Commission updates***

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LW passed on apologies for Michael Schuetz and Maria Velkova, from DG ENER and DG CLIMA, respectively, who were no longer able to attend the meeting to provide an update.

Vassilios Kougionas (VK) gave an update on DG RTD activities relevant to CCS, aside from the SET-Plan TWG9, covered in a later agenda item. He noted the letter received from Graeme Sweeney and Marie Bysveen, regarding ZEP and EERA feedback to the draft Horizon 2020 Work Programme proposals, stating that current concerns over the lack of inclusion of storage and continuation of ETIP funding for ZEP in the current iteration would be considered.

VK informed the meeting of the next Mission Innovation CCS Workshop, which will be held in Houston in September, and focusing on 3 topics; capture, storage, and reuse. A draft roadmap is currently being prepared, which will be presented at the ministerial in China, taking place in June.

#### ***Item 5: Guest presentation: CO<sub>2</sub>GeoNet***

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The AC received a presentation by Ton Wildenberg (TW) on the current activities of CO<sub>2</sub>GeoNet, which currently has 26 members in 19 Member States. This includes the H2020 ENOS project (Enabling CO<sub>2</sub> Storage Onshore) and engagement with ZEP through contributions to TWG and the SET-Plan TWG9 CCUS.

Filip Neele (FN) informed the meeting that CO<sub>2</sub> are now investigating taking a more formal role in ZEP, either through the AC or ACEC, with GS noting the important contribution CO<sub>2</sub>GeoNet have already made to TWGs and the SET-Plan process.

#### ***Item 6: SET-Plan TWG9 CCUS update***

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Harriet Howe (HH) provided an update on the work of the SET-Plan TWG9 CCUS. The ZEP Secretariat is currently assisting in producing a near-final draft of the Implementation Plan, which outlines 'Research and Innovation Activities', which can achieve one or more of the 10 targets outlined under the SET-Plan Declaration of Intent. The next meeting of the TWG9 will take place on the 25<sup>th</sup> March, at which the latest draft of the Implementation Plan will be discussed, ahead of its planned submission in early-May.

It was raised that the AC should consider how the Implementation Plan could continue to be driven following its submission in early-May. GS noted that the AC should identify an ongoing role for ZEP in this process with a TWG working on implementation as well as the planning. This should aim to work with the Government Group to increase leverage.



Following on from this point it was highlighted that the post-2020 trajectory would also be important, and that the Implementation Plan could benefit from the inclusion of the ongoing actions which would be required to meet 2030 targets.

It was noted that a number of ZEP reports, including the Market Economics 5 work and the key recommendations from the Fast Track Transport and Storage report, had already been shared with the TWG9 and input into the Implementation Plan. GS noted that a finalised version of the Fast Track Transport and Storage report would be shared with the TWG9 once approved by the AC.

Gardiner Hill raised potential collaboration between the TWG9 and OGCI, which is currently finalising a storage methodology. This is expected to be released by the end of the 2017 and aims to ensure global consistency, which could provide useful input for R&I Activity 4 of the Implementation Plan regarding the establishment of a European Storage Atlas.

### ***Item 7: 2017 Work Priorities***

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LW presented plans for an ACEC away day, including Network co-chairs, the ERG, and possibly also members of the Government Group to examine the 2017 work priorities for ZEP. This would provide feedback on the current work programme, which could then be updated for late 2017/18, with the aim to have these recommendations approved at either the AC52 in September, or the AC53 in December, depending on the timing of the away day.

It was asked whether ZEP plans to consider a longer term horizon, with a greater focus on engagement beyond Europe, for example for the US and China. It was agreed that this issue would be discussed with Member States and key stakeholders once a consensus had been gained at the ACEC away day.

There was discussion of possible topics which could be included in a forward work programme, including the business case/policy aspects of clean hydrogen, building on the recent NWT Clean Hydrogen report. It was agreed that the NWT co-chairs would give this further consideration and discuss with Jonas Helseth, co-chair of the NWPE.

Further topics which were raised for consideration were CCS and air quality, which FN informed the meeting had remained on the list of NWT priorities for some time, BECCS and negative emissions technologies, and cooperation with renewable to seek to build a bridge between the two communities. Angus Gillespie noted that a key consideration for all output should be to underline urgency and repeat the message that the window to develop CCS is closing.

LW agreed to organise a teleconference with the ACEC, Network co-chairs and the Government Group to discuss the organisation and agenda for the upcoming away day. The AC agreed that in the meantime ZEP would continue with its current work programme until the next AC51 meeting in June.

### ***Item 8: Network Policy and Economics update***

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Lamberto Eldering (LE) provided a brief update on the Network Policy and Economics and its subsidiary working groups, including the TWG Projects of Common Interest (PCI), which was established to support the application process for PCI status for project in the current European Commission call. LE updated the group on the last PCI meeting, which took place on 15<sup>th</sup> February in Brussels, at which the European Commission discussed changes to the template for applications. The call for PCI applications is open until mid-April, after which point successful projects will be announced and eligible for support through the Connecting Europe Facility. It was agreed by the AC that as the TWG was now at the end of the initial TOR would close its work programme.

Charles Soothill (CS) updated the meeting on activities around the TWG Market Economics 5 report: CCS and Europe's Contribution to the Paris Agreement; Modelling Least-Cost CO<sub>2</sub> Reduction Pathways, due to be released the next day in conjunction with the ZEP General Assembly. The report was approved at the AC49 meeting in December, since which the executive summary of the report was updated, following recommendations from the meeting and the ERG. CS agreed to share the updated 2 page executive summary of the report with the AC.

Early in the meeting Rob van der Meer provided a brief update on the progress of the TWG CCU Policy, due to next meet the following week on the 27<sup>th</sup> March in London. The TWG are currently drafting a short report on CCU and energy-intensive industries, with the intention of completing a final report in mid-2017 for submission to the AC51 meeting in June for approval.

GS noted that there were now 4 key processes which need to be delivered in order for ZEP to drive progress on CCS. These are an Implementation Plan which is ambitious, but which could feasibly be executed, a successful PCI application process, for the IEA/IPCC to become part of the process, and expansion of the commercial partners involved in ZEP's work.

Andy Read (AR) provided an update on the progress of the ROAD project. He noted that there was currently more political support for CCS in the Netherlands, demonstrating that political lobbying had been successful. FID had been planned for mid-2017, to allow for operations to commence in 2020, based on a Government decision on coal phase-out before the election and a grant from the EU, which had been achieved. However, he noted that it was now a matter for the new Government to decide, and as state-aid clearance is required - a process which takes around 9 months- it was now unlikely that FID would be achieved in 2017. AR also noted that the uncertainty over the issue of coal phase-out in the Netherlands was removing the business case for the CCS companies involved and that despite political support for the project still being strong, the forward process would be difficult.

### ***Item 9: Network Technology update***

FN provided a brief update on progress within Network Technology (NWT) and its subsidiary working groups. At the AC49 meeting in December 2 NWT reports were approved; Future CCS Technologies, which was published in January, and Commercial Scale Feasibility of Clean Hydrogen, for which a plan for publication and dissemination is currently being developed by the ERG.

FN also provided an update on activities around the Horizon 2020 Energy Work Programme, including the joint ZEP/EERA input, submitted in January, and proposals included as part of the European Zero Emission Technology and Innovation Platform



current draft, following on from earlier discussions. It was noted that ZEP would continue to work with EERA to provide input to the Commission regarding this issue.

Ward Goldthorpe (WG) presented the Fast Track Transport and Storage report. An earlier version of the report had been submitted for discussion to the previous AC meeting, in addition to the NWT meeting in November, and NWPE meetings in November and February. Following feedback from these meetings the report was finalised and presented for the AC's approval. During a discussion of the report's recommendations it was suggested that some of the language around access to data, decommissioning, and transfer of data be characterised differently in order to avoid negatively affecting business today. It was agreed that the TWG co-chairs would liaise further on this issue with Gardiner Hill and make these amendments. The AC approved the report for publication following completion of these amendments.

#### ***Item 10: External Relations Group update***

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Mark Downes (MD) provided a brief update on the activities of the External Relations Group, including the arraignments and agenda for the Parliamentary Hearing on CCS taking place the following day.

MD informed the meeting that publication of the Clean Hydrogen report was planned for April and timed to coincide with the Electricity Market Reform debate. As previously discussed the Market Economics report would be released the following day, and that a dissemination plan for the Fast Track Transport and Storage report would be devised by the ERG once the discussed amendments had been completed.

#### ***Item 11: Any Other Business (AOB)***

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The Chair noted that there was no other business and the meeting was closed.



### **Actions**

<b>Action</b>	<b>Owner</b>	<b>Deadline</b>	
2	Graeme Sweeney and ZEP Secretariat to liaise with Government Group to identify an ongoing role for the TWG9 in the SET-Plan process following submission of the Implementation Plan.	GS/GB/LW	April
6	Finalised Fast Track Transport and Storage report to be shared with the SET-Plan TWG9	HH	25 <sup>th</sup> April
6	Gardiner Hill to provide OGCI input to R&I Activity 4 of the Implementation Plan	GH	April
7	LW to organise a teleconference with the ACEC, Network co-chairs and the Government Group to discuss the organisation and agenda for an ACEC away day.	LW	ASAP
8a	Circulate updated 2 page executive summary of the TWG Market Economics report to the AC	TM	ASAP
9a	Ward Goldthorpe to liaise with Gardiner Hill over amendments to the Fast Track Transport and Storage report.	WG/GH/HH	ASAP
10	Final version of the Fast Track Transport and Storage report to be shared with Weber Shandwick and ERG once amendments have been completed.	HH	ASAP