

# ZEP 71<sup>st</sup> Advisory Council meeting

15 June 2022, 10:00-13:00

## Agenda Item 1: Introduction and welcome

### *1.a. Virtual meeting instructions*

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The ZEP AC71 will be a virtual meeting, held on Microsoft Teams.

Below are some instructions in order for the meeting to run smoothly:

- Before the meeting, you will receive an Outlook invitation for the meeting (10:00-13:00 on Wednesday, 15 June). The Outlook invitation contains a link to Microsoft Teams to join the meeting. If you have not received it, please contact the ZEP Secretariat.
- The Chair will let the presenter for each agenda item finalise his/her presentation before giving the floor to other participants.
- If you have a question, use the chat function (if you have not used it before, you will find a button at the bottom of the screen and the chat function will open up in a window on the right-hand side of the screen).
- In order for the Chair to organise the speaking order, please use the following vocabulary when you have a question:
  - “Chair: question to NN”, if you have a written question for the Chair to highlight, or
  - “Chair: oral question” if you want the Chair to give you the floor for an oral question or comment.
- When you are not speaking, we would suggest that you mute your microphone for sound optimisation.

### *1.b. AC71 meeting agenda*

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The agenda for the 71<sup>st</sup> meeting of the Advisory Council is appended as pre-read 1.b.

### *1.c. AC70 draft meeting minutes*

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The draft meeting minutes from the 70<sup>th</sup> meeting of the Advisory Council, which took place on 23 March 2022, are appended as pre-read 1.c.

### ***1.d. ACEC April meeting minutes***

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The ACEC April meeting minutes are appended as pre-read 1.d.

### ***1.e. ACEC May meeting minutes***

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The ACEC May meeting minutes are appended as pre-read 1.e.

# ZEP 71<sup>st</sup> Advisory Council meeting

## 15 June 2022, 10:00-13:00 CEST

### Draft meeting agenda

Item	Lead Presenter	Time
<b>1 Introduction and welcome</b>	Graeme Sweeney	10:00-10:10
<b>2 ZEP 2022 – programmes, next grant – for information and approval</b>		10:10-10:30
<ul style="list-style-type: none"> <li>ZEP, the next grant, and funding gaps</li> <li>Finance update and ZEP-C budget 2022</li> </ul>	Per-Olof Granström	
<b>3 Updates from Networks – for information and approval</b>		10:30-11:05
<ul style="list-style-type: none"> <li>Updates from TWGs</li> <li>ZEP report <i>CCS for clean flexibility</i> – for approval</li> <li>Follow-up on the Fit for 55 package</li> </ul>	Network Co-Chairs  ZEP Secretariat	
<b>4 Updates from External Relations Group – for information</b>	ERG Co-Chairs ZEP Secretariat	11:05-11:20
<b>5 REPowerEU and the impact on CCS and CCU – for information and guidance</b>		11:20-11:55
<ul style="list-style-type: none"> <li>Presentations on REPowerEU</li> <li>Views on REPowerEU</li> <li>ZEP input and actions</li> </ul>	Chris Bolesta, DG ENER  Christopher Jones, Florence School of Regulation (TBC)  ZEP Secretariat	
<b>6 The CCUS Forum and CO2 infrastructure – for information and guidance</b>		11:55-12:25
<ul style="list-style-type: none"> <li>Presentation on the CCUS Forum</li> <li>EC study on CO2 cross-border infrastructure</li> <li>Ambitions for CO2 storage</li> <li>ZEP input and actions</li> </ul>	Chris Bolesta, DG ENER  Zoi Kapetaki, JRC  IOGP Europe  ZEP Secretariat	
<b>7 Developments on removals – for information</b>		12:25-12:55
<ul style="list-style-type: none"> <li>EC/CLIMA presentation on status</li> <li>Update from the Mission Innovation CDR</li> <li>ZEP actions</li> </ul>	Daniel Kitscha, DG CLIMA  Vassilios Kougionas, DG RTD	
<b>8 Closing remarks and next meeting</b>	Graeme Sweeney	12:55-13:00

**DRAFT MEETING MINUTES**  
**ZEP 70<sup>th</sup> ADVISORY COUNCIL MEETING**

23 March 2022, 10:00—13:00 CET

Virtual meeting

**1. Introduction and welcome**

Chair, **GS**, opens the meeting, informs of proxies and declares the meeting quorate.

Chair asks AC members if there are further items for the meeting agenda – no further items and the agenda is adopted. Chair asks AC members for approval of minutes from AC69, ACEC January – provisionally approved at ACEC February – and ACEC February. All approved.

**2. ZEP development and grant**

**POG** provides an update on ZEP-C finances and budget, the upcoming combined ZEP/IWG9 grant, and the ZEP work programme. He highlighting a positive ZEP-C result for 2021 with increased member funding, lower expenditure, and – although books are not yet closed – year-end financial reserves of close to €290k. The next AC meeting, planned for 15 June, is expected to be held in a hybrid format. The ZEP-C General Assembly will be held directly after the AC meeting on 15 June. Referring to the next grant, **POG** notes that a start cannot be expected until possibly September, creating a new gap in grant funding of 4-5 months. This is a difficult situation, but while ZEP has prepared and has funds that will allow continued operations, this is not the case for the IWG9.

In light of these developments **POG** asks the AC to endorse the proposed ZEP-C budget for May-August 2022 (final approval at the General Assembly in June), to manage the funding during the gap between the grants and together with IWG9 contact the European Commission (EC) to seek a funding solution, and to endorse a prolongation of the current work programme until 31 August 2022.

Chair opens the floor for questions.

**LE** asks how ZEP-C will execute the moving of funds from ZEP to CCSA. Chair responds that the idea is to roll-over the current arrangement for the additional grant gap period.

**JH** highlights that the NGO and research constituencies are key stakeholders of ZEP, and it is crucial for ZEP to be based on public funds to establish trust. He notes that this situation calls for a swift funding solution by the EC. Chair responds that this would be the preferred outcome, and that ZEP operation will go on as normal, unaffected by the temporary financial arrangement with ZEP-C, and that ZEP has no intention of changing its operations as a consequence of this grant delay.

Chair asks for AC endorsement – all endorsed.

### 3. Updates from Networks

#### a. NWPE

**LSN** gives the NWPE update, reminding the AC that a vote will be held on 5 April to approve the revised TEN-E Regulation. She notes that this revision does not include funding for multi-modal transport of CO<sub>2</sub>, and therefore the Network has looked at the TEN-T as a potential possibility for the funding of non-pipeline transport. Discussions are ongoing within NWPE on this matter.

**POG** gives a brief update on CCS+, highlighting that the ZEP input and comments to the initiative have been taken onboard, that the document on guidance and principles will be thoroughly revised, and that the public consultation now is planned for May this year. He notes that the core issue still not solved is to have a clear differentiation between reductions and removals that also includes separate credits.

Chair opens the floor for comments and questions.

**CS** adds that work is also ongoing on the matter of cross-border liability for CO<sub>2</sub> storage. Chair confirms the importance of this work and asks to coordinate the work with NWT. **FN** confirms.

#### b. NWT

**FN** gives the update on NWT, mentioning that the TWG CCS and biodiversity work is ongoing and that a report is expected for approval at AC 71 in June. Regarding TWG CCS for Clean flexibility, he notes that a draft report is being prepared, that will look at the role of CCS regarding the increasing share of renewables in the energy system – and that current developments in Ukraine are speeding up this process. Chair notes the importance of the CCS for clean flexibility report as input in the SET-Plan IWGs cooperation regarding the integration RES in the energy system.

**FN** presents the report on the Directive for geological storage of CO<sub>2</sub>, giving the AC an extra seven days to provide possible feedback. The AC is asked to grant the Chair the right to approve the report after the seven-day period. The AC endorses.

Chair opens the floor for questions and comments.

**MV** welcomes the report and agrees that it is timely: the Directive's guidelines should be updated, and this input will be valuable in this process. However, **MV** notes that CO<sub>2</sub> storage in basalt rocks is an area where further input could also be provided. Chair concurs that significant work went into this good report and will look into how to provide further input on the latter point.

**KBB** notes that seismicity is briefly covered by the report but not naturally occurring earthquakes. He proposes that a factsheet on this topic should be prepared. **FN** proposes that **KBB** provides draft text during the seven-day feedback period to include this matter.

**IP** presents the report and guidance document on CO<sub>2</sub> transport by ship. After the presentation, the floor is opened for questions.

**KBB** welcomes the report and asks if a presentation could be provided to the GCCSI. Chair says yes.

The report and guidance document are approved.

#### 4. Updates from External Relations Group

**LB** and **MS** give updates on behalf of the ERG and Communications group respectively. **LB** highlights the key ERG activities this year, including an article to ENDS Europe, a contribution to the Oxford Energy Forum, an event at the EU Industry Week. **MS** updates the AC on ongoing activities within the Communications group, such as work on communication guidelines on CCS for flexibility and updating the *Facts and Information Toolkit*. Upcoming activities, such as applications to the EU Green and Sustainable Energy Week.

Chair opens the floor for questions and comments.

Relating to the work on communicating CCS for flexibility, Chair notes that it is important to align this work with other ZEP workstreams on flexibility and current affairs that will affect this issue.

#### 5. Carbon Dioxide Removal

**LSN** presents ZEP's draft consultation response that includes a document and a questionnaire. AC approves.

**FR** presents the EC's work on sustainable carbon cycles, highlighting: the quality of removals, the need to cover both nature- and technology-based solutions, the importance of strong criteria for transparency, and that the EC does not intend to define methodologies for the different applications. He also notes the establishment of an expert group that will cover all types of removals.

Chair opens the floor for questions, and notes that ZEP will seek to join the expert group.

#### 6. EU regulatory framework for CO<sub>2</sub> transport infrastructure

**CB** presents the current EC work on this item. He highlights that a CCUS vision paper will be produced, and that ZEP will be consulted regarding the ToR for the upcoming together with the JRC to revise the study from 2010 on optimal designs of EU CO<sub>2</sub> pipelines. **CB** predicts that the CCUS Forum will be held in October – and may be held outside of Brussels – but laments the delay on this workstream as efforts have been redirected to the REPowerEU. Working groups will be set up shortly and the details to join will be uploaded online. Two working groups are of particular interest here: one on CO<sub>2</sub> infrastructure and another on industrial partnerships (similar to Hydrogen Alliance).

**MV** gives a presentation, noting the results from the second large-scale Innovation Fund call. Results will be communicated to applicants in July this year and a third call is planned for Q4 2022. She also informs that an internal workshop with successful first call applicants was held on 15 February, where

the urgent need for storage was highlighted, since most of these successful projects are looking at capture. Here, **MV** notes the crucial role that Member States will play.

Chair opens the floor for questions.

**WB** asks about the timeline for updating review of the Directive on geological storage of CO<sub>2</sub> guidance documents. **MV** responds that there will be a public procurement with a consultant and this process should end by the end of next year.

**JH** asks for thoughts about the most recent Germany-Norway joint statement, especially the last paragraph that refers to these countries taking a leading role on the mentioned issues. **MV** believes it to be a positive statement but, relating to the leading role, she stresses that the EU has several members to consider. **CB** notes that at the working level Germany already is a good partner, and that this joint statement will make this happen also on leadership level.

Chair notes that blue and green hydrogen should not be put against each other – we need both. **JH** concurs that this communication has significant positive implications for blue hydrogen. **AT** informs that Shell's position is that there are indeed synergies between green/blue hydrogen and CCS.

**MV** asks if ZEP aims to revise its views on blue hydrogen in light of recent events. Chair notes that ZEP will look into this matter.

**CS** presents the ZEP draft paper on regulatory framework for CO<sub>2</sub> transport infrastructure. The paper is approved by the AC.

## 7. Sustainable investments and energy dependency

**CB** gives a brief presentation on REPowerEU and ongoing events in energy policymaking. He stresses that in light of Russia's aggression against Ukraine there is a top priority in reducing the share of Russian fossil fuels, with a focus on gas. The EC seeks to diversify its suppliers. Simultaneously the EU aims to boost the deployment of renewables and reduce the demand for fossil fuels in Europe. The issues of energy efficiency and electrification are key in this regard.

Chair opens the floor for questions and comments.

**NR** asks if this will affect Horizon Europe. **CB** responds no, but the rules for the Innovation Fund could be adapted to reflect the new context. **MV** adds that there is now a bigger focus on renewable energy and energy efficiency – hence potentially bigger calls are being explored.

## 8. SET-Plan/Horizon Europe/Mission Innovation

Chair notes ongoing work by the CCUS SET-Plan and the upcoming conference that will be held on 1 April.

**VK** gives an update on the Horizon Europe work programme and Mission Innovation, informing that that DG RTD is currently and through April compiling comments from Member States on the work programme. He also notes that the SET-Plan revamp is going well, and that a new work programme

on clean hydrogen – including blue hydrogen – is being designed. **VK** mentions that the EC is a supporting members on the CDR Mission, and notes that ZEP input on this matter will be particularly useful. Finally, **VK** highlights the cooperation agreement between the EC and the US, where CCUS is included. He asks ZEP for help on the upcoming workshop between the parties that will be held in April and notes that another workshop will be held in November to follow-up and discuss outcomes.

## **9. Closing remarks and next meeting**

Chair thanks all ZEP AC members and guests for participating. As the calendar stands, the AC71 meeting will be organised on 15 June.



## List of participants

AC members		
1	Dr Graeme Sweeney	Chairman of ZEP
2	Vicente Cortés	AICIA/University of Sevilla
3	Jonas Helseth	Bellona
4	Isabelle Czernichowski	BRGM
5	Lamberto Eldering	Equinor
6	Robin Clowes	ExxonMobil
7	Constantin Sava	GeoEcoMar
8	Winston Beck	HeidelbergCement
9	Florence Delprat-Jannaud	IFPEN
10	Kim Bye Bruun	Northern Lights
11	Alistair Tucker ( <i>proxy for Syrie Crouch</i> )	Shell
12	Nils Røkke	SINTEF
13	Charles Soothill	Sulzer
14	Ward Goldthorpe	Sustainable Decisions
15	Filip Neele	TNO
16	Stuart Haszeldine	University of Edinburgh (SCCS)
External speakers		
17	Chris Bolesta	European Commission
18	Daniel Kitscha	European Commission
19	Fabien Ramos	European Commission
20	Maria Velkova	European Commission
21	Vassilios Kougionas	European Commission
Guests		
22	Bernice Cruz	Air Liquide

23	Hanne Rolén	Aker Carbon Capture
24	Eric Deconinck	ArcelorMittal
25	Hanna Biro	Bellona
26	Lina Strandvåg Nagell	Bellona
27	Esme Brandon	BP
28	Ceri Vincent	British Geological Survey
29	Helen Bray	CarbonEngineering
30	Paola Mazzucchelli	Circe
31	Alessia Virone	Clean Air Task Force
32	Toby Lockwood	Clean Air Taskforce
33	Eve Tamme	Climate Principles
34	Cat Reynolds	Drax
35	Domien Vangenechten	E3G
36	Roberto Ferrario	ENI
37	Lucie Boost	Equinor
38	Simon Gianordoli	ETN
39	Frederico Dona	EUROFER
40	Antonella Sopranzetti	ExxonMobil
41	Andreas Cappelen	Fortum
42	Ståle Aakenes	Gassnova
43	Guloren Turan	GCCSI
44	Angus Gillespie	Global CCS Institute
45	Caterina de Matteis	IOGP
46	Thomas Vanhauwaert	Neptune Energy
47	Nora Hansen	Norwegian Confederation of Trade Unions
48	Henriette Nesheim	Norwegian Ministry of Petroleum and Energy
49	Raphael de Loenen	Port of Antwerp

50	Sofie Cuypers	Port of Antwerp
51	Alistair Tucker	Shell
52	Christian Schwarck	Shell
53	Kristin Jordal	SINTEF
54	Marie Bysveen	SINTEF
55	Ian Phillips	Storegga
56	Svante Soderholm	Swedish Energy Agency
57	Tim Peeters	Tata Steel
58	Frederic Linsig	TotalEnergies
59	Hernan Silva	TotalEnergies
<b>ZEP Secretariat</b>		
60	Charles-Albert Bareth	ZEP Secretariat
61	Murillo Salvador	ZEP Secretariat
62	Per-Olof Granström	ZEP Secretariat

## **ACEC April meeting**

**12 April 2022**

**9:00-11:00 CET**

### ***Draft meeting minutes***

#### **1. Introduction and welcome**

Chair, **POG**, welcomes all and informs that Graeme sends his apologies for not being able to join today's meeting. Confirms quorum and reminds all of meeting instructions.

Chair notes moving the AC71 discussion to item 6 and asks for approval of the ACEC April meeting agenda. Asks for any other items that need to be included in the agenda – agenda is approved.

Chair asks for approval of draft meeting minutes from the AC70 meeting. Minutes are approved.

#### **2. Next grant and preparations for AC71**

Chair provides an update on the next grant, highlighting the endorsements from AC70 for ZEP to manage the gap in funding and for ZEP and IWG9 to seek a solution with the European Commission (EC). A letter, in pre-reads, was sent on behalf of the IWG9 and ZEP highlighting the importance for the platforms to continue to function and deliver high-quality output and asking the EC to remedy the situation. A response is expected to propose that CINEA fast-tracks the Grant Agreement.

Chair proposes a strategic seminar with the ACEC to prepare for the next ZEP work programmes and also to discuss business models for CO2 transport and storage infrastructure. He also mentions the CCUS SET-Plan end-of-grant conference that was organised on 1 April.

Chair opens the floor for comments.

**CS** welcomes the strategic seminar proposal and stresses the need to discuss business models in view of the solution that has been approved for the UK.

#### **3. Updates from Networks**

##### **a. NWPE**

**CS** provides an update from NWPE, noting that ZEP has finalised its response to the EC's call for evidence on CDR and that the EC will look at the ZEP response with interest. ZEP also completed a paper on a regulatory framework for CO2 transport infrastructure that was approved at the AC70. **CS** notes the interest in the TEN-T Regulation revision for possible funding of non-pipeline CO2 transport.

**CAB** provides an update regarding bilateral agreements on cross-border issues between governments, noting the interest within the ZEP Government group for ZEP to receive, synthesise and share best practices on items/principles for inter-governmental agreements.

Chair provided a brief update on the CCS+ Initiative, noting the ongoing review of methodologies ahead of the May public consultation and highlighting ZEP's proposal for additionality: the need for a clear and transparent standardised method with a derogation to a positive list on a time limited basis (as per the Taxonomy TEG proposal for RES LCA).

Chair opens the floor for comments.

Commenting on the TEN-T revision, **LSN** notes that it is possible to get recognition with the main rapporteur assigned to this dossier. Chair notes this positive input and highlights the importance to have good knowledge of what parts of non-pipeline CO<sub>2</sub> transport we would like to have funded in order to be credible. In the discussion that followed, several parts of CO<sub>2</sub> transport by ship was mentioned.

**CS** asks if ZEP is expecting feedback from standardisation bodies on the CO<sub>2</sub> shipping work. Chair confirms that feedback is expected from IMO and ISO as well as organisations for river transport.

**CS** notes several items that would be important for inter-governmental agreements, highlighting the storage reference to the EU ETS, since this is not included in the Directive on geological storage of CO<sub>2</sub>. Chair notes that guidance for the Government Group will indeed include many items and questions, and that the guidance will be shared with the ACEC for endorsement on beforehand.

#### **b. NWT**

**AH** provides an update from NWT, noting the two finalised ZEP reports.

**AH** also provides an update on the report 'CCS for clean flexibility', noting that the TWG will provide a draft final report for the 10 May ACEC meeting, and asking the ACEC for comments. Referring to the draft report sent to the ACEC, **AH** mentions the structure of the report and highlights high grid volatility introduced by the increasing share of renewable energy sources, and that the report compiles good examples for grid flexibility – from France's high share of nuclear energy and Germany's attempt to wean itself off natural gas to pipeline integration experiments in the Netherlands, Belgium, and the Spain-France-Germany MIDCAT project.

**AH** provides an update on the work by TWG CCS in a biodiversity and land use perspective. This work looks at the rise in demand for biomass, with associated impacts on ecosystems and soils. It further highlights the supply chain assessments needed to unlock the climate mitigation potential of bio-CCS in a sustainable manner. The TWG will provide a draft final report by end of May this year.

Chair gives a brief update on the ZEP support for the Mission Innovation (MI) work by the EC and asked the ACEC to endorse the proposed setup for the work with **NR** and **FN** as Co-Chairs for a working group.

Chair opens the floor for questions and comments.

The setup for the MI work is endorsed.

**CS** asks if there are views to be shared regarding blue hydrogen, and more specifically the usage of CCS at LNG terminals. **AH** responds that there is no clear view on this particular issue – it is important to focus on creating a business case, as a necessary step to move further.

#### 4. Updates from External Relations Group

**MS** gives an update from the ERG/Communications group and recent activities, referring to the pre-reads. These include the upcoming application for the EU Green Week, with an event on decarbonising European industries by 2050, upcoming webinars on the two ZEP reports, and the recently submitted application to hold a policy panel at the EU Sustainable Week this autumn. At the latest ERG meeting, infographics summarising the reports' key findings were endorsed and will be communicated. Finally, **MS** highlights the ongoing work on communicating CCS for clean flexibility, which has gained in relevance and scope in light of the REPowerEU communication. As the discussion has evolved, an updated version of the document will be prepared.

**JH** follows with an update from the ERG, adding that in discussions with CEMBUREAU the idea to hold an industrial CCUS event was highlighted. **JH** notes ZEP should reconnect with CEMBUREAU to follow up.

Chair notes the importance of technology-neutrality and energy system integration towards net-zero regarding CCS for clean flexibility. Asks if the ACEC supports this course of action for an industrial event.

**WB** offers to help and ACEC endorses.

#### 5. Follow-up on CCUS Forum/EU strategy

Chair provides an update about the EC invitation to co-chair working groups for the CCUS Forum. Three working groups are proposed: (1) WG CO2 infrastructure (2) WG CCUS Vision, and (3) WG CCUS Industrial Partnership. He also informs about the CO2 infrastructure studies that EC is preparing: The next PCI list including CO2 storage, a refresh of the 2010 optimising cross-border CO2 transport study, and an external study on CO2 infrastructure regulatory framework.

Chair notes that the EC has promised to come back to ZEP for input on two of the CO2 infrastructure studies. Asks the ACEC to endorse that ZEP will apply to run the WGs on Vision and CO2 infrastructure.

Chair opens the floor for comments and questions.

**CS** asks what the difference is between the two latter CO2 studies. Chair informs that the cross-border optimising study is technical together with the JRC while the external one is focusing on the regulatory framework.

A discussion follows on whether ZEP should apply for both WGs or focus on one. The ACEC endorses that ZEP should apply for both WGs.

*Action: ZEP to apply for both WGs.*

## 6. Role of CCS and CCU in the pathway towards climate-neutrality

Chair refers to the IPCC WG III report on climate change mitigation, mentioning ZEP's briefing and noting a more positive description on CCS than in the previous report: both CCS and CDR will be needed to reach climate-neutrality. Regarding REPowerEU, Chair stressed the risk for CCS development based on the many mentioned measures on energy independence and high energy prices. He also notes the more negative wording from the EC on CCUS linked to the energy and Ukraine crises, that may reflect lower political and financial support for these technologies.

Based on this, Chair asks how ZEP best can communicate to safeguard continued strong support for CCS and opens the floor for comments.

**CS** highlights incoherence between statements from the EC and positive developments on projects in many EU countries. **JH** highlights that the energy crisis and Russia's war against Ukraine may have led to a lack of information for policymakers on the way forward. **LB** confirms hearing inconsistent messaging and highlights the need to support policymakers. **WB** proposes a ZEP response to REPowerEU, building on the good case we have now for CCS and CDR (as exemplified in the IPCC report), that would also be sent to Secretariat-General. **LB** asks if the ZEP Government Group could be used to reinforce this messaging. Chair responds that the Government Group is separate from ZEP but we can share the ZEP paper and invite them to adopt the same language and actively engage. Finally, **CS** proposes to include statistics regarding how many new jobs that the CCUS industry will create in Europe, moving away from a theoretical defence of CCS.

Chair concludes that TWG P&F and the Communication Group will be involved in the preparation of the paper.

*Action: ZEP secretariat will with the help of TWG P&F and the Communications group prepare a draft response to REPowerEU.*

Chair now presents the early draft agenda for AC71, notes the need to also add the REPowerEU and linked discussion. Asks the ACEC about the agenda and if further additions is needed to attract participants to join also in person. **CS** notes that extending the meeting beyond three hours is difficult but could possibly create the opportunity to invite senior-level officials.

The draft meeting agenda will be updated ahead of the next ACEC.

## 7. Closing remarks

Chair thanks all for participating in the meeting. Reminds that AC71 and the ZEP-C AGM take place on 15 June. The next ACEC meeting is planned for 10 May. Closes the meeting and wishes happy Easter.

### *List of participants*

Jonas Helseth (10.00-11.00)	Bellona
Lina Strandvåg Nagell ( <i>proxy from Jonas Helseth, 09.00-10.00</i> )	Bellona
Winston Beck	Heidelberg Cement
Lucie Boost ( <i>proxy from Lamberto Eldering</i> )	Equinor
Nils Røkke ( <i>proxy to POG</i> )	SINTEF
Arthur Heberle	Mitsubishi Power Europe
Christian Schwarck	Shell
Charles-Albert Bareth	ZEP Secretariat
Murillo Salvador	ZEP Secretariat
Per-Olof Granström	ZEP Secretariat



## **ACEC May meeting**

**10 May 2022**

**9:00-11:00 CEST**

### ***Draft meeting minutes***

#### **1. Introduction and welcome**

Chair, **GS**, welcomes all, confirms quorum, and reminds all of meeting instructions.

Chair asks for approval of the ACEC May meeting agenda. Asks for any other items that need to be included in the agenda – agenda is approved.

Chair asks for approval of draft meeting minutes from the ACEC April meeting. Minutes are approved.

#### **2. Next grant and preparations for AC71**

Chair gives the floor to **POG**, who gives a short update regarding the funding gap, letter to the European Commission, and the feedback given. The EC regrets this potential gap but clarify that there is no legal basis in the Horizon Europe Work Programme 2021-22 to give support in the transition period. The recommendation is for CINEA to fast-track the Grant Agreement process. ZEP has already endorsed to support the gap, however there is a need for a solution also for the IWG9 part of the funding gap. **POG** notes three possible solutions and asks ACEC to endorse the solution to work exclusively on ZEP until the next grant starts, continuing at the same ZEP engagement level, and start the IWG9 part of the work when the grant has started.

Regarding AC71, **POG** highlights key items in the draft agenda, and informs that the June meeting will be virtual. AC72 will be a full-day physical meeting organised in Brussels.

Chair notes the difficulty in backdating the start of the Grant and asks the ACEC to endorse the proposed solution, to continuing at the same ZEP engagement level and work exclusively on ZEP until the next grant starts. The ACEC endorses.

#### **3. Updates from Networks**

##### **a. NWPE**

**LSN** gives an update on NWPE, referring to the pre-reads and covering the issues of CO2 transport infrastructure, bilateral agreements, the EU-UK ETS relationship, CDR, and the TEN-T regulation:

- On CO2 transport infrastructure **LSN** notes that the EC is preparing two studies with the help of consultants, and it needs ZEP input specifically on the study on a regulatory framework for CO2 transport.

- On bilateral agreements **LSN** informs that Norway is expecting agreements with the Netherlands and Belgium in 2022. The government group also asked ZEP to promote best practices and information sharing with regards to bilateral agreements – TWG P&F to support this action. An information exchange group of competent national authorities will meet in June.
- On UK-EU ETS frameworks, **LSN** highlights the need for the same definition of ‘high-quality storage sites’ for emitters to use their allowances and it has been proposed that NWPE will draft a paper to communicate this formally.
- On CDR, **LSN** notes that NWPE discussed ZEP’s response to the call for evidence and public consultation during the last meeting. It has been suggested that ZEP communicates clearly that ‘nature-based CDR solutions must follow the same rules as technological solutions regarding robust carbon accounting and permanence’.
- On TEN-T, **LSN** notes that it could provide a possibility for funding specific aspects of non-pipeline CO<sub>2</sub> transport, if the EC is given clear information on what should be funded. There is no such list of items at the moment.

**POG** gives a short update on CCS+, noting the ongoing reviews ahead of the public consultation and highlighting that the initiative without involving the Advisory Group has replied to the CDR call for evidence, giving very different input compared to the one from ZEP (ZEP highlighted the need for clear, gold standard definitions and methodologies). **POG** also mentions the ZEP TWG to support the Mission Innovation CDR work, with **NR** and **FN** as co-chairs.

Chair opens the floor for comments and questions.

A discussion follows on funding non-pipeline CO<sub>2</sub> transport through the TEN-T and CEF Transport. It is noted that there is a need for a clear list of items linked to CO<sub>2</sub> transport by ship that will be in need of funding.

The ACEC endorses for ZEP, supported by TWG P&F and NWT and based on the pre-read, to prepare input regarding ‘high quality storage’.

The ACEC endorses for ZEP to communicate the need for ‘nature-based CDR solutions to follow the same rules as technological solutions regarding robust carbon accounting and permanence’.

## **b. NWT**

**FN** gives update on NWT, noting that the ZEP report on the Directive on the geological storage of CO<sub>2</sub> is published and a webinar is planned for the end of June/early July. A meeting with DG CLIMA was held to present the report, and the outcome was very positive. The EC will put out a tender for the revision of the Directive’s Guidance documents.

Chair opens the floor for comments and questions.

The discussion focuses on how to best communicate the need for high-quality storage. **FN** stresses that all storage needs to be high quality. **RH** highlights that there is a need for public and auditable data to establish trust. **CS** notes that high-level criteria could be formulated to enable CO<sub>2</sub> exports to the UK.

**FN** further informs that the UK has transposed the Directive onto national law – so it is important that definitions/criteria are on the same level as the Directive.

Chair notes the importance to engage the Communications group to promote strong participation of member state representatives for the ZEP events about the reports.

Chair gives the floor to **AH** for the update on the TWG on CCS from a biodiversity and land use perspective, and to present the final draft report on CCS for clean flexibility for endorsement. **AH** presents the report and its key findings. He provides the latest updates from the TWG on CCS in a Biodiversity and Land use perspective.

Chair opens the floor for comments and questions.

Chair asks for the endorsement of the final draft report 'CCS for clean flexibility'. **CAB** proposes that the ACEC delegate endorsement to the Chair, in order to incorporate the feedback that must be provided by ZEP members until Friday 13. Chair agrees and adds that this endorsement would release the report for use before the final adoption in June. Endorsed.

#### 4. Updates from External Relations Group

**LB** gives an update on the ERG, noting that ZEP prepared input ahead of the EC's publication of the REPowerEU plan. The TWG Policy & Funding and the Communications Group were both consulted ahead of the ERG endorsement. **LB** also notes that last week ZEP got a confirmation from the EC about organising an event during the EU Green Week. The ZEP event will reiterate the need for CCS to enable the industrial transition. There are still unconfirmed speakers, but the event aims to include the EC, industry stakeholders, a trade union and possibly others. **MS** follows to present the draft program for each of the 3 ZEP events in June.

Chair opens the floor for comments and questions.

#### 5. Follow-up on CCUS Forum

Chair informs that the Commission was supposed to notify about the new forum working groups – who will host, when to start, etc. However, there is no news as of yet. Asks the ACEC if there are other specific inputs that ZEP should prepare for the Forum.

#### 6. REPowerEU

Chair gives the floor to **CAB** for a brief update on REPowerEU and the draft response prepared by ZEP.

Chair opens the floor for comments and questions.

A discussion follows on the upcoming REPowerEU proposals. **CS** mentions that it is also important to consider CCS in the LNG sector. **WB** remarks that Executive Vice President Timmermans highlighted

the need for CCS and blue hydrogen recently. Chair highlights the need to act on a timely manner ahead of the 18 May.

## 7. Closing remarks

Chair thanks all for participating in the meeting. Reminds that AC71 and the ZEP-C AGM take place on 15 June. The next ACEC meeting is planned for 12 July. Closes the meeting.

### *List of participants*

Jonas Helseth	Bellona
Lina Strandvåg Nagell	Bellona
Ruth Herbert	CCSA
Lucie Boost ( <i>proxy from Lamberto Eldering</i> )	Equinor
Winston Beck	Heidelberg Cement
Arthur Heberle	Mitsubishi Power Europe
Christian Schwarck	Shell
Nils Røkke	SINTEF
Charles Soothill	Sulzer
Filip Neele	TNO
Dr Graeme Sweeney	ZEP Chair
Charles-Albert Bareth	ZEP Secretariat
Murillo Salvador	ZEP Secretariat
Per-Olof Granström	ZEP Secretariat

## Agenda item 2: ZEP 2022 – programmes, next grant – *for information and approval*

### 2.a. ZEP, the next grant, and funding gaps

The previous three-year grants by the European Commission (EC) for ZEP and IWG9 ended respectively in October 2021 and in April 2022. The next grant, 'HORIZON-CL5-2021-D3-02-15: Support to the activities of the ETIPs and technology areas of the SET Plan', will be a combined ZEP/IWG9 grant.

The ZEP AC has anticipated the risk of a gap in grant funding and built up financial reserves in ZEP-C for the provision of secretariat support. With the AC's endorsement, the ZEP-C Board of Directors approved funding during the grant gap period: from November 2021 until the start of the next grant.

Given the risk that the next grant would start later than anticipated (not until after the summer 2022, resulting in a new several-month long gap in grant funding), the AC70, in March, endorsed for ZEP-C to manage the funding during the gap between the grants. The AC70 also endorsed that ZEP together with IWG9 should contact the EC for a solution regarding the funding. The letter, appended, was sent to the EC on behalf of the IWG9 and ZEP, highlighting the importance for the platforms to continue to function and deliver high-quality output, and asking the EC to remedy the situation.

In the response, the EC regrets this potential gap but clarifies that there is no legal basis in the Horizon Europe Work Programme 2021-22 to give support during the transition period. The EC recommendation is for CINEA to fast-track the grant agreement process. It was indicated that the next grant could start already in July.

A meeting was held between the ZEP Chair and the three IWG9 Co-Chairs. Since the IWG9 does not have the same funding possibility as ZEP and no own reserves, it was agreed, and later endorsed by the ACEC meeting in May, to work exclusively on ZEP until the next grant starts, maintaining the same ZEP engagement level, and to start the IWG9 part of the work when the grant has started.

For the new grant, the proposal from the Carbon Capture and Storage Association (CCSA, the holder of the previous ZEP grant) has been selected by the CINEA. Grant agreement preparations are ongoing with the aim to start this new grant in July 2022.

The ZEP Chair and the IWG9 Co-Chairs will meet on 24 June to discuss the coordination of the two platforms based on the [guidance document produced in 2021](#) and the grant agreement.

## 2.b. Finance update per 31 May 2022 and outlook to 31 December 2022

Appended is ZEP-Communications financial management report of 31 May 2022.

- Income: Budgeted income for 2022 is €282,500. This is not including the €20,000 from new membership to be approved. ZEP-C invoices for 2022 have been issued.
- Expenditure: Due to Covid-19, the expenditure for January through May 2022 is lower than budgeted. Virtual meetings have given the opportunity to strongly increase ZEP activities, while at the same time keeping costs low.
- ZEP-C funding for the provision of services during the gap in grant funding from January through June 2022 is budgeted to €140,000. This will be presented to the ZEP-C Board of Directors for approval.
- The ZEP-C financial reserves are expected to increase from €301,506 at the end of 2021 to approximately €318,000 at the end of 2022 (not including the €20,000 from new membership to be approved).

## 2.c. ZEP-C budget 2022

Given that there is no grant agreement in place yet, and work programmes are still to be defined, only part-year budgets (through August) were presented to the AC69 in December 2021 and the AC70 in March 2022 for endorsement. Since there will not be clear knowledge regarding these items until AC in September, **it is proposed that AC71 endorses a budget for the full year 2022 – and for the ZEP-C General Assembly to approve this budget at their June meeting that is following directly after the AC71.** An updated 2022 budget that will include the new work programmes will then be presented for approval at AC72 in September. The budget is a prolongation of the budgets that have already been endorsed and include the following items:

- Continuation of the core ZEP-C services: chair, accounts, legal support, etc.
- Planning for introduction of physical meetings from September 2022.
- Continuation of communications and events at the previous level.
- Strategic work, development of ZEP.
- Funding for the provision of services (ZEP-C Board of Directors meeting to be held).

With this budget, the ZEP-C financial reserves are expected to increase to approx. €318,000 at the end of 2022 (not including the €20,000 from new membership to be approved).

**ZEP-C Budget 2022**

Activity	Budget (€)
Administration / Auditing	8 000
Website maintenance	1 000
Legal advice	4 000
Chair	67 992
Contingency	4 000
Communications/events	28 000
Strategic work	12 500
Funding January-June	140 000
<b>Total Expenditure</b>	<b>265 492</b>
<b>Income</b>	<b>282 500</b>
<b>Net profit</b>	<b>17 008</b>

1 April 2022

Ms Rosalinde Van der Vlies  
Director, DG RTD  
Ms Catharina Sikow-Magny  
Director, DG ENER  
European Commission

**Funding gap in the support action for the SET-Plan Implementation Working Group 9 on CCUS (IWG9) and the Zero Emissions Platform (ETIP ZEP)**

Dear Ms Rosalinde Van der Vlies,  
Dear Ms Catharina Sikow-Magny,

On behalf of the IWG9 and ETIP ZEP, we would like to draw your attention to the gap in funding that will occur before the next grant starts. Since this would mean a serious setback for the work, we are asking the European Commission to remedy this situation to allow these two SET-Plan platforms to continue to function and deliver high-quality output.

The three-year Horizon 2020 coordination and support action (CSA) grant for ETIP ZEP ended in October 2021, and the current three-year Horizon 2020 CSA grant for the IWG9 will end on 30 April this year. The call for proposals for the next grant – ‘HORIZON-CL5-2021-D3-02-15: Support to the activities of the ETIPs and technology areas of the SET Plan’ – clarifies that only one CSA project within the CCUS sector will be funded and that the European Commission would like to see proposals combining the support and coordination of the ETIP and the IWG, resulting in a single grant. The IWG9 and ETIP ZEP prepared for this reason [a document to guide grant applicants](#).

The call for proposals ended on 5 January 2022 and it is not yet known to us who will be awarded the grant. We have also understood that CINEA’s preparations for the next grant agreement will mean a possible starting date in September/October 2022. This will result in a several-month long funding gap before this new combined ETIP ZEP/IWG9 CSA grant can start. This also follows the current six-month funding gap since the end of the ETIP ZEP grant in October 2021, during which the ZEP members are funding the ETIP’s work.


Without funding during this gap between grants, the support action would have to be stopped and resources demobilised. It will not be possible for the two platforms to continue their high-quality work, and this in a time when work on CCUS is of critical importance for Europe’s transition toward climate neutrality.

Given that ETIP ZEP has a linked non-profit organisation sponsored by industry and energy members, ZEP has funds and can manage the cashflow aspect of its gap in grant funding. However, this is an unsatisfactory solution since it raises the possibility to question the provisions and impartiality of the work. This has been clearly highlighted by the ZEP members, representing the research and NGO constituencies: 'for trust reasons, the ZEP work must be funded by public money'. The IWG9 does not have any funds for similar solutions.

The funding needed to continue the work of the two SET-Plan platforms for May through September 2022 is €140 K (this sum is based on five months of a three-year grant budget of €1 million).

Please do not hesitate to contact us should you wish to discuss the matter in more detail.

Yours sincerely,



Joëlle Rekers, Ministry of Economic Affairs and Climate Policy, The Netherlands,  
Co-Chair of IWG9



William Christensen, Ministry of Petroleum and Energy, Norway, Co-Chair of IWG9



Dr. Graeme Sweeney, Chairman of ZEP and Co-Chair of IWG9



## Forecast

## Budget management: Expenditure against 2022 budget

Activity	Contractor	Budget 2022	Comments	To date Spent	Comments	To Date Committed	Comments
Administration / Auditing	Adams accountants / Vandelanotte	€ 8 000		€ 1 997			
Website maintenance	Karakas	€ 1 000		€ 0			
Legal advice	Lawsquare	€ 4 000		€ 0			
Chair	Ardnacruggan Energy Services	€ 67 992		€ 28 530		€ 39 462	
Contingency		€ 4 000		€ 883			
Communications and events		€ 28 000					
Funding 2022 + Strategic work		€ 152 500				€ 140 000	
<b>Total</b>		<b>€ 265 492</b>		<b>€ 31 410</b>		<b>€ 179 462</b>	

Spent: Actually paid or contractually due for delivered work  
 Committed: Based on signed contracts, yet to be approved invoices or founded estimates

Spent + Committed € 210 872  
 Remaining total budget € 54 620

€ 301 506	Starting point 2022 (= Left over budget 2021)
2022 Total Spend	Comments Relative to budget
€ 8 000	
€ 1 000	
€ 4 000	
€ 67 992	
€ 4 000	
€ 28 000	
€ 152 500	
€ 265 492	Total budget spent 2022

## Cash management of ZEP Communications VZW / ASBL

Category	Source	Issued invoices	Comments	Pending invoices	Comments	Received payments	Comments
2021 contributions	O&G		ENI SPA, Shell, Equinor, TotalEnergies, Oslo Värme	€ 180 000			
	OEM						
	Others (confirmed)		Port of Rotterdam, HeidelbergCement, Gassnova, EBN, Northern Lights	€ 102 500			
	Others (Potential)						

€ 180 000	
€ 0	
€ 102 500	

General	VAT return	€ 270	VAT declar 2022/05	€ 13 146	Invoices 2022 to be rec.	€ 0	VAT on sales invoices
<b>Total outstanding / pending ZEP-C</b>		<b>€ 270</b>		<b>€ 295 646</b>			

€ 282 500	Total forecasted income 2022
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## Cash situation (of 31 May 2022)

Current account (KBC - Business compact rekening)			€ 302 030
Savings account (KBC - Spaarrekening)			€ 101
<b>Actual cash at bank and in hand</b>			<b>€ 302 131</b>

318 514,00	Forecasted Left over budget 2022
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## Expenditure situation

Source	Outstanding invoices	Comments	Pending invoices	Comments
Short term creditors	€ 0		€ 6 954	VDL + CA + Ardna
<b>Outstanding invoices in spent to date, to be paid</b>	<b>€ 0</b>		<b>€ 6 954</b>	

## Cash boundaries

Minimum virtual financial position (all creditors paid, no more income) € 295 178  
 Maximum virtual financial position (all creditors paid, all income realised) € 591 094

## Agenda item 3: Updates from Networks – for information and approval

### 3.a. Network Policy and Economics

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The latest Network Policy & Economics meeting took place on 4 May 2022. Discussions included:

- *Future work on regulatory framework for CO<sub>2</sub> transport infrastructure:* DG ENER gave a state-of-play on the upcoming European Commission (EC) studies that would cover topics such as the methodology for storage projects, the design and regulatory framework for an EU-wide CO<sub>2</sub> infrastructure. These studies will inform the CCS and CCU vision paper, which is planned for 2023. It was mentioned that the key elements highlighted by ZEP in its paper should be taken into account during the drafting of the studies.
- *The CCUS Forum:* DG ENER informed participants that two countries are shortlisted to host the CCUS Forum. Three working groups will work on separate topics to inform the plenary session in October. The co-hosts of the working groups are still to be announced.
- *Best practices for intergovernmental agreements:* Norway has signed memorandum of understanding on CCS in early 2022 with a number of European countries. DG CLIMA mentioned that an information exchange group of competent authorities would meet in June 2022 and that this matter would be discussed. Participants discussed the need for future bilateral agreements to have as much commonality as possible.
- *The need for equivalence between the EU ETS and UK ETS regarding CO<sub>2</sub> storage:* Participants discussed the need to define ‘high-quality storage’ under both the EU and UK ETS to enable emitters in one system to claim allowances in another. Participants highlighted the need to communicate this and to use the opportunity since both the EU and UK ETS systems are being reviewed.
- *The upcoming EC proposal on Carbon Dioxide Removals (CDR):* The group discussed ZEP’s response to the public consultation. Participants highlighted that that permanence is key for nature-based solutions in light of the certification mechanism and that definitions and methodology must be clear before we can engage in tradability.
- *Possibilities for non-pipeline CO<sub>2</sub> transport in the TEN-T regulation:* Participants discussed which parts of the non-pipeline CO<sub>2</sub> transport value chain that can be funded through the TEN-T. Participants were invited to send in suggestions.

*The next Network Policy & Economics meeting will take place on 8 September 2022.*

The TWG Policy & Funding held its latest meeting on 28 April 2022. The group discussed:

- *Risk of setbacks regarding CCS and CCU:* The group discussed the signals highlighting a reduced importance of CCS and CCU due to the energy crisis. ZEP members should voice the importance of CCS to reach carbon neutrality. The need to communicate ZEP views and try to hold an event together with industry representatives following the publication of the REPowerEU was highlighted.
- *Regulatory framework for CO2 infrastructure:* The UK's already decided business model for transport and storage of CO2 was presented. The group discussed possible elements of business model(s) that could be developed for the EU.
- *CCUS Forum and work programme:* The group discussed the upcoming working groups of the Forum, ZEP's application to co-host two working groups, and the fact that the EC will only produce a vision paper and no dedicated strategy.
- *EU ETS:* Participants discussed the need for ZEP to develop a paper calling on a definition of 'high-quality storage' in both the UK and the EU ETS to ensure that emitters can store in another CO2 in other systems and still claim allowances. Participants suggested asking the Network Technology for support on the definition of 'high-quality storage'.

*The next TWG Policy & Funding meeting will take place on 10 June.* The agenda include among other things: the REPowerEU consultation and draft ZEP response to the calls (see below), Draft ZEP paper on equivalence between the EU and UK ETS, harmonised definitions of low-carbon and renewable gases to create a level playing field.

#### Need for similar rules for storage of CO2 in EU and UK ETS

Regarding the UK and EU emissions trading systems (ETS), there is a lack of clarity regarding the rules that apply to emitters located in one system intending to store CO2 in a site located in another system. Emitters should be treated in the same way regardless of the system they are located in so that an Europe-wide competitive market for CO2 transport and storage can be guaranteed.

The latest ACEC endorsed for ZEP to draft a paper calling for similar rules for storage of CO2 in the EU and UK ETS – where the key issue is definition of high-quality storage, to be shared with the EU institutions and Member State Governments as well as the UK Department for Business, Energy & Industrial Strategy (BEIS).

***The draft paper – for approval by the AC – will be shared separately following the meeting of TWG Policy & Funding on 10 June.***

#### Calls for feedback

The following calls for feedback related to the REPowerEU plan are open:

- a) '[Production of renewable transport fuels – share of renewable electricity](#)', open until 17 June, which aims to set out “the requirements for renewable electricity used to produce these renewable transport fuels so they can be counted as fully renewable”.
- b) '[Renewable energy – method for assessing greenhouse gas emission savings for certain fuels](#)', open until 17 June, which aims to establish “a methodology to assess greenhouse gas emission savings from renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels”.
- c) '[Renewable energy projects – permit-granting processes & power-purchase agreements](#)', open until 19 July, which aims to “facilitate renewable energy production projects focusing on barriers, including: the length of permitting procedures, the complexity of rules and processes for site selection and administrative authorisations, grid-connection issues, and staffing of permitting authorities”.
- d) '[Energy – updating EU legislation to make the EU independent from Russian fossil fuels \(REPowerEU\)](#)', open until 19 July, which aims to amend the Recovery and Resilience Facility (RRF) by adding dedicated REPowerEU chapters.

ZEP is preparing a feedback response to the two first calls.

***The draft response to the calls for approval by the AC, will be shared separately following the meeting of TWG Policy & Funding on 10 June.***

#### Call for feedback regarding the TEN-T regulation

A call for feedback on the TEN-T – [Revised TEN-T guidelines](#) – is open until 24 November, which aims to amend the TEN-T regulation to stimulate low and zero-emission transport, enhance digital preparedness, and the resilience to extreme weather events. Given the interest regarding funding of parts of the non-pipeline CO2 transport infrastructure, TWG Policy & Funding will discuss whether ZEP should respond to this.

#### Fit for 55 votes in the European Parliament

The European Parliament (EP) held a plenary session in Strasbourg on 6-9 June, particularly important as MEPs voted on several files from the Fit for 55 policy package that impact on CCS and CCU, including:

- a) The revision of the EU Emissions Trading system (EU ETS) – *rejected*
- b) The creation of a Carbon Border Adjustment Mechanism (CBAM) – *postponed*
- c) The creation of a Social Climate Fund – *postponed*
- d) The revision of the Effort Sharing Regulation (ESR) – *approved*
- e) The revision of the land use, land use change, and forestry (LULUCF) regulation – *approved*
- f) The revision of the regulation on CO2 standards for cars and vans – *approved*.

- a) Revision of the EU ETS – The EP rejected the proposed revision of the EU ETS voted by the Committee on the Environment, Public Health and Food Safety (ENVI Committee) on 8 June, by 340 votes against and 265 in favour. Social-democrats, Green, far-left, and far-right MEPs voted against the revision, as proposed by the ENVI Committee. The rapporteur for the revision of the EU ETS is MEP Peter Liese (EPP – DE). Following this rejection, the proposed revision was sent back to the ENVI Committee, where it is expected to be difficult to reach a compromise ahead of the planned vote on 23 June.
- b) Following the rejection of the revision of the EU ETS, the CBAM vote was postponed.
- c) Following the rejection of the revision of the EU ETS, the vote on the creation of a Social Climate Fund was postponed. The Social Climate Fund would finance direct income to vulnerable households and measures to reduce emissions in the road transport and buildings sectors. The Social Climate Fund is intended to alleviate the negative social consequences of the revision of the EU ETS.
- d) Revision of the Effort Sharing Regulation – The report was adopted. The ESR sets binding annual greenhouse gas emission reductions for Member States and regulates roughly 60% of EU emissions.
- e) Revision of the LULUCF regulation – The report was adopted. The LULUCF regulation creates a commitment for each Member State to ensure that accounted emissions from land use are entirely compensated by an equivalent accounted removal of CO<sub>2</sub> from the atmosphere through action in that sector.
- f) Revision of the regulation on CO<sub>2</sub> standards for cars and vans – The report was adopted. The regulation on CO<sub>2</sub> standards for cars and vans sets EU fleet-wide CO<sub>2</sub> emission targets and includes a mechanism to incentivise the uptake of zero- and low-emission vehicles. The report includes support for the EC proposal to ban new CO<sub>2</sub>-emitting vehicles by 2035. Intermediate emissions reduction targets for 2030 would be set at 55% for cars and 50% for vans.

#### Update from the CCS+ Initiative

The CCS+ initiative aims to leverage carbon markets and scale up global decarbonisation and carbon removal efforts, by defining project based methodologies for reduction and removal of CO<sub>2</sub>. ZEP is a member of the initiative's Advisory Group (AG). ZEP's role in this initiative is to highlight compliance, clear definitions, the need for a rigorous and coherent standards and a clear pathway towards Article 6 compliance.

The initiative's work has been further postponed, due to discussions on critical items such as embodied carbon, additionality, differentiation between reductions and removals. The public consultation is now planned to start in approximately four weeks.

ZEP has been very clear regarding the need for a clear differentiation between reductions and removals, also including different types of credits. This is still one of the most important issues to solve. ZEP has also provided input, highlighting the need for a

clear and transparent standardised method on additionality – in addition to project based ones – not least for trust reasons. An revised version of the document on Guidance and Principles – crucial basis for the work – is expected within a couple of weeks.

The CCS+ initiative has provided input to the EC's public consultation on the certification of CDR – this was done without consulting the AG. There are some major differences between the ZEP and CCS+ responses to this questionnaire – while ZEP would like the EU to establish comprehensive, gold standard requirements for carbon removals (on MRV, duration of the removal, additionality, etc.) – the CCS+ initiative would like to see only minimum standard requirements.

*There will be an update at the meeting.*

### 3.b. Network Technology

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The latest Network Technology meeting took place on 3 June 2022. Discussions included:

- *Three published ZEP reports:* The group discussed the need for clear definition of high-quality storage in order to create equivalence between the two systems. The group highlighted the need to communicate about equivalence on the UK and EU ETS and that the Network should prepare such a definition. Updates were given on the reports:
  - [‘Experience in developing CO2 storage under the Directive on the geological storage of carbon dioxide’](#).
  - [‘Guidance for CO2 transport by ship’](#)
  - [‘Carbon capture and storage for clean flexibility’](#).
- *REPowerEU and the role of CCS/CCU:* Participants discussed the content of the REPowerEU plan and the fact that CCS is lacking from the proposals. It was mentioned that ZEP would respond to two of the REPowerEU calls for feedback to highlight the crucial need for technology neutrality. There was a presentation highlighting the dependence of various supply chains, including CCS.
- *TWG CCS and biodiversity:* Participants received an update on the challenges addressed by the draft report in preparation. The importance of comparing energy yields and land use between different technologies was mentioned. The group was also discussing examples of forest management.
- *TWG Mission CDR:* DG RTD gave an update on Mission Innovation. Participants received an update from Gassnova on the role of Norway in Mission CDR. Norway is leading in the Mission work on BECCS and it is looking for a co-lead, preferably from Europe.
- *ISO TC-265:* Participants were updated on the ongoing work in ISO TC-265. A new Working Group (VII) under the management of Norway, will look into the transport of CO2 and ways to ensure interoperability.

### TWG CCS in a biodiversity and land-use perspective

The TWG met on 8 June. The report is expected to be finalised for endorsement at the ACEC meeting in July 2022. Arthur Heberle, who is chairing this work, will give a presentation of the work so far at the AC meeting.

### TWG Mission CDR

Mission Innovation is a 20-countries initiative to accelerate public and private investments in clean energy innovation. Patrick Child, Deputy Director-General of DG RTD at the EC, is chairing the Mission Innovation's Steering Committee since December 2021.

The goal of the [CDR mission](#) is to enable CDR technologies to achieve a net reduction of 100 million metric tons of CO<sub>2</sub> per year globally by 2030. In the CDR mission – led by United States, Saudi Arabia, and Canada – the EC/DG RTD is participating as a supporting member. Norway is participating as core member of the mission, represented by Gassnova.

This is a critical objective. The Intergovernmental Panel on Climate Change (IPCC) published a report called '[Climate Change 2022: Mitigation of Climate Change](#)' on 4 April 2022. As outlined [in a ZEP briefing](#) the majority of scenarios, BECCS plays a significant role (up to 780Gt pa), with DACCS (up to 310Gt pa) also playing a role (which varies to extent and confidence depending on the scenarios). The report also states that pathways likely to limit warming to 2°C or 1.5°C require some amount of CDR to compensate for residual GHG emissions.

ZEP has set up a temporary working group (TWG) under Network Technology to support the EC in this mission:

- Co-Chairs: Nils Røkke and Filip Neele
- NWPE/TWG Policy & Funding representatives: Lina Strandvåg-Nagell and Christian Schwarck
- Gassnova: Jørild Svalestuen and Ståle Aakenes
- ZEP Secretariat
- Invited are also Vassilios Kougiouas from DG RTD, and other possible EC representatives involved in the work.

NWPE representatives are participating for the coordination with the ZEP policy/regulatory work on CDR. During the TWG meeting on 19 May, this was discussed:

- the need to involve industry in this work,
- harmonising regulation as a future key topic,
- the need for clear definition and accounting for CDR, and



- the need for Mission CDR to present a clear timeline.

***If you are interested in joining this temporary working group, please [contact the ZEP Secretariat](#).***

The TWG is also to follow the development in the Clean Hydrogen Mission, where the goal is to “increase the cost-competitiveness of clean hydrogen by reducing end-to-end costs to USD 2 per kilogram by 2030” ([link](#)). That mission is led by Australia, Chile, the DG RTD, the United Kingdom, and the United States. Mission members “commit to deliver at least 100 large-scale integrated clean hydrogen valleys worldwide by 2030”.

### ***3.c. ZEP report CCS for clean flexibility – for approval***

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The objective of the report is to show the importance of clean flexible power in the framework of volatile renewable energy production, to highlight the importance of balancing the electricity system, and to point out the key role of CCS and low-carbon hydrogen in that context.

The report finds that the share of renewables in the EU energy mix will increase strongly, and that there is a strong need for flexible power supply to enable these renewables and to balance the electricity grids. The report also finds that CCS combined with existing gas-fired power plants can ensure clean flexibility and that CCS should be a license/requirement to operate fossil fuel power plants.

*A short presentation of the report will be given at the AC meeting.*

***The report is appended as a separate document for AC approval.***



## Agenda item 4: Updates from External Relations Group – *for information and guidance*

### 4.a. Overview of ZEP communications activities and events

#### Follow-up on activities so far

The ZEP Communications group and the External Relations Group have met twice since AC70 in March, discussing among other things these items:

- Drafting communication guidelines on CCS for clean flexibility, informing ZEP's activities on this topic.
- The ZEP input to REPowerEU, as a follow-up action to ACEC April, ahead of the Communication launch date of 18 May. In its input, ZEP highlighted the need for technology neutrality as a critical instrument of climate action ([link](#)). Further information is detailed in the item 5 of this pre-read.

Three ZEP reports have been published since the AC70. They are available on the ZEP website:

- On 29 March, ZEP published a report titled '*Guidance for CO2 transport by ship*'. This report looks at how the future development of CO2 transport infrastructure by sea and inland waterways can connect all European emitters to safe and permanent offshore CO2 storage. [Click here to read the report](#). [Click here to read the infographic](#).
- On 11 April, ZEP published a report titled '*Experience in developing CO2 storage under the Directive on the geological storage of carbon dioxide*'. It aims to facilitate the work of operators and public authorities working on the deployment of CO2 storage projects, for example, by providing clear guidance based on experience. [Click here to read the report](#). [Click here to read the infographic](#).
- On 19 May, ZEP published a report titled '*Carbon capture and storage for clean flexibility*', completing the work of the associated TWG. The report looks at the important role CCS technologies will play in energy system integration as the European Union increases the share of renewables in the energy mix. It concludes that CCS is critical in enabling the increase of renewable electricity and balancing the European energy system. [Click here to read the report](#).

Four ZEP newsletters have been published so far since the last AC meeting. The list including links is available below:

- [5 April ZEP Newsletter](#)
- [22 April ZEP Newsletter](#)
- [13 May ZEP Newsletter](#)
- [31 May ZEP Newsletter](#)

Two ZEP events have been organised since AC70:

- *Clean & strong European industry by 2050* in the context of the EU Green Week, with the following speakers:
  - Lucie Boost, External Relations Group Co-chair, Zero Emissions Platform
  - Chris Bolesta, Policy Officer, DG ENER/European Commission
  - Winston Beck, Director EU Government Affairs, HeidelbergCement
  - Benjamin Denis, Senior Policy Advisor, IndustriAll
- *Decarbonising Europe: CO<sub>2</sub> transport by ship* in the context of the recent ZEP report titled *Guidance for CO<sub>2</sub> transport by ship* ([link](#)), with the speakers:
  - ZEP TWG Co-chairs:
    - Ian Philips, Project and Business Development, Storegga
    - Alistair Tucker, General Manager CCUS, Shell
  - Daniel Kitscha, Policy Officer, DG CLIMA/European Commission
  - Baris Dolek, Shipping Commercial Manager, Northern Lights
  - Chris Clucas, General Manager, SIGTTO
  - Maurits van der Linde, Hazardous Substances and Safety Policy Advisor, Dutch Association for Inland Shipping

ZEP has also moderated an external event on 6 April, titled: '*Transport of CO<sub>2</sub> to permanent storage: A missing piece in Europe's industrial decarbonisation plan*' ([link](#)), with the following speakers:

- Per-Olof Granström, Zero Emissions Platform
- Lina Strandvåg Nagell, Bellona Europa
- Kim Bye Bruun, Northern Lights
- Fred Selhorst, Victrol
- Winston Beck, Heidelberg Cement
- Lee Beck, Clean Air Task Force (CATF)

**Social media** – ZEP has an active Twitter account, [@EUCarbonCapture](#).

## Upcoming activities

- An event will be held on the ZEP report '*Experience in developing CO<sub>2</sub> storage under the Directive on the geological storage of carbon dioxide*' ([link](#)):

July – date to be announced

*Permanent CO<sub>2</sub> storage projects play a key role in Europe's climate change mitigation efforts. Today's projects are forerunners who will set the stage for many more that must still be developed to ensure we achieve climate neutrality: The SET-Plan sets a target of at least 6 new CO<sub>2</sub> storage sites in preparation or operation stages by 2030, with a further 9 sites in appraisal stage, both onshore and offshore. But the success of these projects relies on clear guidance that provides operators with regulatory certainty. The lessons learned by today's CO<sub>2</sub> storage forerunners could inform policy and drive decarbonisation forward.*

*Learning and sharing experience, as well as promoting best practices, will be crucial as the European Union updates its Guidance Documents for the Directive on the geological storage of CO<sub>2</sub>. This implies a clear approach to communication on the functional requirements for effective CO<sub>2</sub> storage: Guidance should be simple, and public authorities need to engage early and often with CCS projects, enhance cooperation among stakeholders, and provide communication. With the participation of:*

- *TWG Chair and report co-author: Filip Neele, TNO*
- *DG CLIMA, European Commission*
- *National Geological Survey agency*
- *CCS project*
- *CATF*
- Next autumn will be a good opportunity to update the ZEP website, covering all the progress that has been achieved in recent months. The ZEP Communications group will be engaged in this work.
- The EU Sustainable Energy Week (EUSEW) will take place between 26 and 29 September 2022. ZEP applied jointly with Bellona, CATF, HeidelbergCement, and H-Vision. The application has been rejected for the main conference, but it is still eligible as a partner event.

*There will be an oral update at the meeting.*

## Agenda Item 5: REPowerEU and the impact on CCS and CCU – for information and guidance

### 5.a. REPowerEU and the impact on CCS and CCU

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#### Launch of the REPowerEU Plan

The European Commission (EC) proposed on 8 March 2022 an outline of a plan to make Europe independent from Russian fossil fuels well before 2030 and reduce EU demand for Russian gas by two thirds before the end of 2022: [‘REPowerEU: Joint European Action for more affordable, secure and sustainable energy’](#), as outlined in [the ZEP briefing](#).

The EC then launched [the REPowerEU Plan](#) on 18 May, aiming to rapidly reduce the EU’s dependence on Russian fossil fuels while tackling the climate crisis. It includes several policy measures, as outlined in [the ZEP briefing](#). Key proposals include, among others:

- Doubling of the autumn 2022 large-scale call of the Innovation Fund to approximately €3 billion – focused on specified technologies.
- Increase of the 2030 target for renewables to 45% of the EU energy mix.
- Two Delegated Acts on the definition and production of renewable hydrogen, with a target of 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of renewable hydrogen imports by 2030.
- Carbon contracts for difference to support the uptake of green hydrogen by industry.

The EC also opened four calls for feedback following its REPowerEU Plan. The two first calls will be crucial for the potential future role of hydrogen in the EU energy mix (more details can be found in pre-read 3).

*There will be a presentation by Chris Bolesta from DG ENER on the REPowerEU plan.*

### 5.b. ZEP input to REPowerEU and the European Commission

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Following this initial outline in March and ahead of the launch of the detailed REPowerEU Plan on 18 May, [ZEP published comments](#). ZEP highlighted the need to deploy all low- and zero-carbon technologies in order to face the climate and energy crises. ZEP affirmed that a technology-neutral and long-term approach to climate action in energy and industry is crucial to avoid jeopardising an already extremely challenging path towards climate neutrality and preserve industrial activity and employment.

Based on the publication of the REPowerEU Plan and the calls for feedback, the ZEP Networks, TWG P&F, the Communications group, and the ERG have been involved in

the discussions and preparations of a ZEP response. Key ZEP concerns are the following:

- The lack of technology neutrality in the proposal.
- The importance of harmonising definitions of renewable and low-carbon gases to safeguard a level playing field.
- The watered-down additionality principle linked to renewable gases.
- The importance to also include CCS technologies, with a specific reference to the REPowerEU window for the Innovation Fund.

***The draft response will be discussed with the TWG Policy & Funding on 10 June and be sent out as separate documents for approval by the AC.***

ZEP has also in a letter to Director-General Petriccione of DG Climate Action on 7 June ([available here](#)), communicated the importance of technology neutrality and the crucial need for the Innovation Fund to keep supporting CCS in this year's and the upcoming years' large-scale calls.

## Agenda Item 6: The CCUS Forum and CO2 infrastructure – *for information and guidance*

### 6.a. The CCUS Forum

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The first CCUS Forum was organised in October 2021 ([link to 2021 programme, minutes, and other material](#)). The European Commission (EC) established the CCUS Forum as an annual event and a key action envisaged to support industrial capture, use and storage of CO2. The next session of the CCUS Forum is planned for October 2022. The EC has highlighted that three working groups (WGs) will prepare the October session, as outlined in the relevant webpage ([link](#)):

- WG CO2 Infrastructure,
- WG CCUS Vision (to discuss elements of a strategic vision paper on CCS and CCU that the EC intends to publish in 2023), and
- WG CCUS Industrial Partnership (to explore if CCS and CCU need a support structure similar to Hydrogen Alliance)

ZEP has applied to host the two WGs on CO2 infrastructure and CCUS Vision. The EC has not yet announced further information regarding the WGs nor who will host them. The three WGs are expected to meet two or three times ahead of the plenary session in October 2022. A host country/city for the CCUS Forum – in line with the Madrid Forum for Gas and the Electricity Regulatory Forum in Florence – is also expected to be announced soon.

*An oral update by Chris Bolesta from the EC will be provided during the meeting.*

### 6.b. CO2 infrastructure

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Following its Communication on '[Sustainable Carbon Cycles](#)' in December 2021, and in order to upscale industrial solutions for the capture, use and storage of CO2, the EC will launch studies on CO2 transport and storage infrastructure, concerning both technical issues – optimisation of cross-border CO2 infrastructure, led by the Joint Research Centre (JRC) – and the regulatory framework for CO2 infrastructure, commissioned to an external consultancy.

The EC has indicated that they will connect to ZEP/the stakeholders for input on draft ToRs for the studies.

*An oral update by Zoi Kapetaki from the JRC will be provided during the meeting.*

As approved by AC70, ZEP recently published two timely reports on the issues of CO2 storage ([link](#)) and CO2 transport by ship and by inland waterway ([link](#)), with further

information available under item 3 of this pre-read. ZEP has also published a proposal for a regulatory framework for CO2 transport infrastructure ([link](#)).

## Agenda item 7: Developments on removals – *for information*

### ***7.a. Policy status of carbon dioxide removals (CDR)***

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The European Commission (EC) published a Communication ‘Sustainable carbon cycles’ in December 2021 to support carbon dioxide removals (CDR). In this Communication, the EC announced that “an EU regulatory framework for the certification of carbon removals by end of 2022” ([link to Communication](#)). The EC plans put forward a proposal for a regulation on the certification of CDR in Q4 2022. This legislative proposal is considered an essential steppingstone towards the goal of fully integrating carbon removals into EU climate policy and achieving net zero CO<sub>2</sub> emissions by 2050.

In this context the EC opened a call for evidence and a public consultation ([link](#)) ahead of the publication of a proposal for a regulation to monitor, report and verify the authenticity of carbon removals. The call for evidence and the public consultation was published on 7 February 2022, with a deadline on 2 May 2022. ZEP responded to this [call for evidence](#) and [the public consultation](#).

*There will be a presentation by Daniel Kitscha, DG CLIMA, on the certification of CDR.*

Regarding the ZEP support for the Mission Innovation CDR work, please see item 3 in this pre-read.

*There will be a presentation by Vassilios Kougionas, DG RTD, on Mission Innovation and possible updates regarding the Horizon Europe work programme.*



## Agenda item 8: Closing remarks and next meeting

### 8.a. AOB

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### 8.b. Upcoming AC and ACEC meetings

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**Advisory Council (Wednesdays)**

AC72 – 14 September 2022

AC73 – 14 December 2022

**Advisory Council Executive Committee (Tuesdays)**

12 July 2022

16 August 2022

18 October 2022

22 November 2022