



## Climate Change Advisory Council Meeting –Carbon Budgets Working Group

### Meeting 8

#### APPROVED MINUTES

**Date:** 23<sup>rd</sup> November 2023

**Start time:** 10:30

**Venue:** EPA officers, Clonskeagh and Video Conference Meeting

**Present:** In person: Yvonne Buckley. On MS Teams: Oliver Geden, Kian Mintz-Woo, Kevin Hanrahan, Hannah Daly, Jim Scheer, Mert Yakut, David Styles, Stephen Treacy, Trevor Donnellan, Niall McInerney, Brian Ó Gallachóir

**Apologies:** Jeanne Moore

**Observers:** Online: Jillian Mahon

**Secretariat:** In person: Meabh Gallagher, Kieran Craven; Phillip O'Brien. Online: George Hussey, Gina Kelly, Bryn Canniffe

### 1. Opening of meeting

#### 1.1. Adoption of Agenda

The agenda was adopted by the Carbon Budgets Working Group (CBWG).

#### 1.2. Minutes for the Carbon Budgets Working Group Meeting

The minutes from the previous meeting were accepted by the CBWG.

#### 1.3 Actions

For action 9, the CB WG members were thanked for feedback provided. The action was proposed for closing, but members were invited to continue to make further contributions

where identified. In relation to Action 10, macro-economic inputs and template for warming impact analysis have been sent out to modelling teams, one response has been received. The action was proposed to be left open for one further week for any additional feedback or comments. There were no objections to either proposal.

## **2. Carbon Dioxide Removals and Negative Emissions Technologies**

Oliver Geden, from the German Institute for International and Security Affairs, and member of the CB WG gave a presentation on Carbon Dioxide Removal (CDR) and its integration in European Union Climate Policy. CDR was defined as being specific to the removal of carbon dioxide from the atmosphere by anthropogenic activities and durably storing it. Differentiation was made between CDR and other carbon management processes such as carbon capture and utilisation, and carbon capture and storage. The IPCC AR6 observed that CDR is evoked in all scenarios to counterbalance hard to abate residual emissions to achieve net zero GHG emissions and limit temperature increases. The need for location specific variations of CDR were noted, with a range of CDR methodologies presented, and their requirement under different future scenario pathways. Potential future policy directions were outlined with implications for EU mitigation trajectories and requirements for CDR to achieve net zero emissions, including the application of CDR post net-zero.

Following the presentation discussions included relevance of this topic for this CB Programme, but also the long-term planning for Ireland, including the methodologies and difficulties of modelling CDR options to make informed choices for policy makers. CDR methodologies and their impact on global emissions, the use of climate models to test CDR assumptions, locational distribution of CDR potential, and negative emission trading were all discussed. The application of novel vs traditional CDR methodologies in Ireland, biodiversity impacts, overshoot scenarios, natural carbon removal process, and land-use budgets on national or international scales were all raised.

## **3. Biodiversity Considerations**

Yvonne Buckley from Trinity College Dublin presented on biodiversity considerations to carbon budgets. YB brought to the group's attention that the All Island Biodiversity and Climate Research Network (AICBRN), of which YB is a co-chair, will make a submission to the Council with respect to biodiversity and carbon budgets.

The presentation included the need for increased work to protect biodiversity. The complexity of biodiversity assessments in carbon budgets was outlined along with acute limitations in Ireland regarding existing research capacity and understanding of the impacts of biodiversity considerations and mitigation options for carbon budget scenarios. The importance for the identification of biodiversity co-benefits and costs, and agreement of key indicators to monitor change was raised. Suggestions for increased awareness and understanding of biodiversity for carbon budgets were made, including understanding of conflicts over land-use and the vision for post-2050.

Discussions were held on the ability for models to include biodiversity variables for both carbon budgets and land use, and the need for greater understanding of the complexities of

biodiversity along with the potential for *a priori* biodiversity considerations in models. The relative utility of spatial models, transition models, and post-hoc analysis to understand the impact of land-use change was outlined, with the importance of progressing towards spatial models over time. The limitations of the temporal constraints of this carbon budget programme for biodiversity considerations were noted. The inherent value of expert post-hoc analysis was highlighted and possible future scenarios for considering biodiversity were raised. The importance for early identification and outline of synergies and conflicts of biodiversity consideration options for this and future carbon budget programmes was raised.

#### **4. Agriculture and Land Use Review**

Phillip O'Brien from the Secretariat presented on a paper on Agriculture and Land Use in Ireland. This paper was previously presented to the CCAC. The presentation included the value of the sector to Ireland, measures of its sustainability, and demographics of farming in Ireland. Emission mitigation options for agriculture in Ireland were noted. Some potential impact of policy measures including nitrates, forestry, water table management and LULUCF were outlined.

Discussions included temporal dynamics of our land use, and the importance of baseline year in framing assessment. The value of historical perspective was noted, recognising the importance of context in agriculture, including the role of land as energy source, and historic emigration in Ireland. Recent structural changes impacting dairy and tillage farms were noted including expected global market growth for agricultural products. The importance of agriculture and land making a significant contribution to emissions reductions, notwithstanding historical context, and need to draw from a diverse evidence base to inform analysis was raised. The role of small farms and their importance for biodiversity was highlighted.

#### **5. Carbon Budgets Work Plan**

The thematic topics for the CB WG were outlined with those already conducted, and proposed future topics, with remaining availability for any additional thematic topics to be considered with feedback from the CB WG.

The remaining timelines of the Carbon Budgets Workplan were outlined, with results from first iteration to be presented in December, warming impact analysis from selected core scenarios and post-hoc analysis from SEAI's NEMF presented in January along with planned discussion of economic and macroeconomic implications of the first iteration of modelling results. The thematic discussion of ESAB 2040 targets will be rescheduled to a meeting in 2024.

Following a request from the council at their last meeting, presentations from the modelling groups due in December on the results from the first iteration of modelling will be shared with the council. The Secretariat will be in touch with modelling teams to assist with the sharing of modelling information with the Council in early 2024.

#### **6. Next Steps and Agenda for next meeting**

In December the meeting will include discussion on the first iteration of core modelling results and thematic topics will include the COP28 Global Stocktake from EPA colleagues, and a paper on moral considerations for carbon budgets by Kian Mintz-Woo. The January meeting will include thematic discussion of the IEA update on Net Zero Roadmap 2023 and the warming impacts from selected CB WG core model scenarios, along with input from SEAI on post-hoc testing on core model results, and economic and macroeconomic considerations.

## 7. AOB

Presenters and participants were thanked for their contributions.

## 8. CB WG Actions Log

Action Number	Date Raised	Description	Owner	Due	Status
9	19/10/23	CBWG members to provide feedback and/or suggestions on the proposed topics for consideration in 2024 as outlined in the Meeting No. 7 presentation	CB WG Members	Nov 2023	Closed  CB WG Members still welcome to provide suggestions for additional thematic topics on adhoc basis.
10	19/10/23	Secretariat to share a note on the inputs required for macroeconomic analysis and a template regarding the temperature impact analysis with the core modelling teams for review and feedback	CCAC Secretariat/ CB WG Members	Nov 2023	Open:  Proposed closure on 01/12/23