



Climate Change Advisory Council Meeting –Carbon Budgets Working Group

Meeting 17

Approved MINUTES

Date: 29th August 2024

Start time: 13:30

Venue: SEAI Head Office at 3 Park Place, Hatch Street, D02 FX65 & Microsoft Teams

Present: In person: Emma Lynch, James Murphy, Trevor Donnellan, Kevin Hanrahan
Hannah Daly, Jeanne Moore, David Styles.

On MS Teams: Kian Mintz-Woo, James Moran, Mert Yakut, Brian O Gallachóir

Apologies: Oliver Geden, Stephen Tracey, John Fitzgerald

Observers: Conor Bracken

Secretariat:

In person: George Hussey, Meabh Gallagher; Phillip O'Brien, Jodie Colgan, Kieran Craven,
Katherine Dooley, Claire Camilleri.

On MS Teams: Ciara Hilliard, Bryn Canniffe

External presenters:

In person: Gary Lanigan, Karl Richards.

On MS Teams: Vahid Aryanpur, Bakytzhan Suleimenov

1. Opening of meeting

All were welcomed to the meeting.

1.1. Adoption of Agenda

The agenda was adopted by the CBWG.

1.2. Minutes for the Carbon Budgets Working Group Meeting

The minutes from the previous meeting were agreed by the CBWG subject to a minor correction regards attendance.

1.3. Actions

2. Biodiversity Considerations for Carbon Budgets

James Moran (JM) gave a presentation on the Biodiversity Considerations for Carbon Budgets in the context of the core modelling results to date. The interrelated issues between biodiversity and climate change were presented highlighting the importance of considering biodiversity alongside climate change. The indirect and direct drivers of biodiversity loss and figures on biodiversity loss in Ireland were presented. The lack of integration of biodiversity with climate change policy was highlighted as a concern and as a barrier to achieve the overarching objectives of the Nature Restoration Law. Lastly, key messages for considering biodiversity when developing carbon budgets and questions for discussion were provided.

A discussion followed the presentation including the importance of official guidance on how to protect biodiversity while achieving our carbon budgets and climate goals, and synergies and conflicts between biodiversity and LULUCF scenarios. The importance of community buy-in, and the paucity of spatial data on land use and how this presents a challenge to developing effective biodiversity policy were noted.

3. Presentation of the 3rd Iteration of Core Modelling Results

Presentations were made of the 3rd iteration of core modelling results by Teagasc (FAPRI), UoG (GOBLIN), and UCC (TIM).

Gary Lanigan (GL) and Kevin Hanrahan (KH) from Teagasc presented results from the FAPRI model. The presentation provided an overview of the most recent FAPRI modelling outputs, consisting of 9 scenarios projected to 2050. Uncertainties in projecting the model out to this time horizon were noted. The MACC analyses and FAPRI model variables were presented including the level of uptake required for the different mitigation measures across different pathways. The main results were

outlined, which included the reductions in GHG emissions for different modelled scenarios and challenges for the sector.

Following the presentation the discussion included agricultural activity levels, mitigation measures included in model, impacts of nitrogen derogation, and similarities and difference between the GOBLIN and FAPRI scenario outputs.

New Action: The Secretariat is to follow up with Teagasc to provide direction as to how to present emissions reductions i.e., changes from BAU vs changes from 2018 levels.

David Styles (DS) from University of Galway presented the results of the 3rd iteration of GOBLIN modelling and analysis with scenarios modelled towards 2050. Updates to models from the second iteration were presented. These changes resulted in a total of 13 scenarios modelled. Model inputs and outputs were outlined including impacts of water table management, anaerobic digestion and forestry. The results indicate the difficulty in attaining net zero GWP100 by 2050. Model outputs were presented out to 2100, indicating net zero with GWP 100 can be achieved, requiring expansion of forestry and CCS.

A discussion followed the presentation, including afforestation and biodiversity factors and interaction, and agricultural mitigation measures and uptake. Conflicts between forestry economic incentives and the protection of biodiversity were noted, highlighting the need for policy and practices to protect biodiversity. The historic occurrence of ruminant grazing and implications for land-management was raised, and the allocation of BECCS emission abatement to specific sectors was mentioned as needing clarification.

New Action: Hold discussion between Secretariat, GOBLIN and FAPRI on the appropriate combination of FAPRI and GOBLIN agriculture and land use scenarios.

New Action: Secretariat to follow up with the TIM and GOBLIN teams to discuss the allocation of emissions savings from BECCS between the AFOLU and Energy sectors.

Hannah Daly (HD) from UCC presented the results of the 3rd iteration of modelling and analysis of the TIM Model. An overview of the changes to the 3rd iteration from previous iterations of modelling and analysis was presented including engagements that assisted with refinement of modelling. Difference between the carbon budgets were outlined including year of achieving net zero emissions of carbon dioxide from energy.

Model scenarios including EPA's current "WEM" and "WAM" emission projections were presented with implications for remaining within prescribed carbon budgets.

Overall, it was highlighted that the level of budget exceedance of “WEM” and “WAM” scenarios by 2030 would require extreme levels of emission reduction by 2035. The model assumptions and mitigation pathways to 2050 were presented, with cumulative emissions and marginal abatement costs of the core scenarios. Relationships of scenarios to the proposed ESAB EU 2040 advice were highlighted, along with the difficulties to assign the “unallocated” savings in CB2. Overall, the TIM modelling and analysis indicate that failure to accelerate emissions cuts across sectors this decade, and meet existing sectoral emission ceilings, will increase “unabated” emissions, require unprecedented reductions after 2030, accelerate compliant net-zero timelines.

Following the presentation the discussion included drivers of energy demand reductions, maintaining capacity and operation of the power sector, assumptions of the scenarios, including the LED scenarios.

The Secretariat thanked the modellers for their work.

4. Carbon Budgets Work Plan

The final meeting topics were presented to the group. It was noted that the meeting will be held in the EPA McCumiskey house and via Teams online and the meeting would finish at the later time of 17:15.

The remaining timelines of the Carbon Budgets Workplan were outlined including the timeline for the Carbon Budgets Working Group Outputs Report and the CCAC 2024 Carbon Budgets Proposals. The Secretariat presented a draft Table of Contents for the Carbon Budgets Working Group Outputs Report and noted that they will be in contact working group members individually regarding their final reports to be submitted. The CBWG members were asked to include an executive summary at the outset of their final report and to conclude and submit their final reports by 30th September.

The Secretariat presented updates regarding the Scenario Dialogue Tool to the group. A notification email will be circulated once the tool is updated and open to CBWG members to populate. The group should populate and finalise the shared version on SharePoint by 30th of September.

5. Next Steps

The Secretariat presented next steps to the CBWG. The core modellers were requested to share the raw data by Friday 30th of August for the subsequent temperature impact analysis. The Secretariat will schedule a call with the CBWG economists to discuss outputs in advance of the September CBWG meeting. The

CBWG are requested to submit their final reports by 30th September. The Secretariat will reach out to CBWG members individually to discuss their final report.

New Action: The Secretariat will liaise with each CBWG member individually on their final outputs reports.

6. AOB

No other business

Meeting Closed

7. CB WG Actions Log

Action Number	Date Raised	Description	Owner	Due	Status
22	28/06/24	DS to provide guidance to JW for the 3rd iteration of analysis and ST to facilitate a bilateral call with the EPA inventories team regarding the revised soil emissions factor.	CBWG Members	Aug 2024	Open ST facilitated a discussion on the latest update to the inventory with DS, CD, the Secretariat, and the EPA inventories and projections teams. DS to provide guidance to JW regarding the incorporation of the latest inventory refinement to the 3 rd iteration of GOBLIN analysis.
28	29/08/24	The Secretariat to follow up with Teagasc to provide direction as to how to present emissions reductions i.e., changes from BAU vs changes from 2018 levels.	Secretariat	Sep 2024	Open
29	29/08/24	Hold discussion between Secretariat, GOBLIN and FAPRI on the appropriate combination of FAPRI and GOBLIN agriculture and land use scenarios.	Secretariat and CBWG Members	Sep 2024	Open

30	29/08/24	Secretariat to follow up with the TIM and GOBLIN teams to discuss the allocation of emissions savings from BECCS between the AFOLU and Energy sectors.	Secretariat and CBWG Members	Sep 2024	Open
31	29/08/24	Secretariat will liaise with each CBWG member individually on the submission their final outputs reports by the 30 th of September	Secretariat and CBWG Members	Sep 2024	Open