



Climate Change Advisory Council Meeting –Carbon Budgets Working Group

Meeting 18

DRAFT MINUTES

Date: 18th September 2024

Start time: 14:00

Venue: EPA Dublin Office & Microsoft Teams

Present: In person: Kian Mintz-Woo, John Fitzgerald, Kevin Hanrahan

On MS Teams: James Moran, Mert Yakut, Oliver Geden, David Styles, Jeanne Moore, Kelly De Bruin, Niall McInerney, Stephen Treacy, Emma Lynch, Trevor Donnellan, Hannah Daly, Colm Duffy

Apologies: Brian O Gallachóir

Observers: Online: Edgar Morgenroth, Jilian Mahon

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

Online: Ciara Hilliard

External presenters: Online: Joe Wheatley

1. Opening of meeting

All were welcomed to the meeting. A recording was played to the CBWG from the chair of the Council thanking the working group members for their involvement in the process.

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.

1.3. Actions

The Secretariat proposed closing Action 22 related to guidance on temperature analysis for the 3rd iteration and Action 28 related to baseline reporting of emission reductions.

A number of actions remained open from the last meeting (See Actions Log below for further details). Three actions were discussed:

Action 29: It was noted that a call has been scheduled for Monday the 23rd of September between Secretariat, GOBLIN and FAPRI on the appropriate combination of FAPRI and GOBLIN agriculture and land use scenarios.

Action 30: This action was discussed at CBWG Meeting No.18 to develop a shared understanding allocation of emissions savings from BECCS with a follow up call to be scheduled if required. Further bilateral discussions on core modelling results are scheduled for late September and the Secretariat requests that the relevant teams provide specific detail on the allocation of emissions savings from BECCS in their final reporting.

Action 31: It was noted that the Secretariat have been in contact with each CBWG member regarding the the submission their final outputs reports by the 30th of September. Secretariat request that CBWG members reach out if any further guidance on reporting is required or if they foresee any difficulty with submission by the requested deadline.

2. Analysis of warming impact of selected core scenarios (3rd iteration)

Joe Wheatley (JW) presented on the warming impact of the 3rd iteration of modelling of national emissions. JW noted that the FaIR model was employed with the

warming impact of 1196 scenarios modeled. These scenarios and results were presented.

The warming impact assessment highlighted that less than 20% of scenarios modelled would reach temperature neutrality by 2050 if the global scenario SSP126 was followed, which is compatible with a peak warming scenario of 1.9 °C in 2071. Separately, the warming impact by gas was presented for one scenario. It was highlighted that the majority of Ireland's warming impact is historical. Finally, limitations of the modelling and analysis were presented, including the absence of economic and social analyses.

Following the presentation discussion included carbon capture, alignment with EU policy and fair allocation of warming. The importance of including historical emissions in considerations of warming impact was raised, along with alignment of Paris temperature objectives and EU targets of carbon neutrality. Projections of GHG emissions and the future use of metrics to measure warming impact were discussed.

Following the discussion JW left the meeting.

3. Macroeconomic impacts of 3rd Iteration of Core Modelling Results

The Secretariat presented an update of the actions to facilitate the macroeconomic impacts analysis. The Secretariat noted a call between the CBWG economists on the 16th of September. Further actions include the request for guidance from the CCAC on the scenarios to prioritise for macroeconomic analysis.

Following the Secretariat update, Kelly de Bruin (KDB) provided an update on the application of the I3E model to the carbon budget process, with development delays restricting the model application for this carbon budget process.

KDB also presented on recent research published by the ESRI: Climate Impacts and Adaptation in Ireland. The features and overview of the model were outlined, and cost impacts were presented including the economic cost to sectors resulting from the impacts of climate change. Education and long-term planning were identified as barriers to preventing industries from responding to climate change impacts. The benefit of implementation of adaptation actions to reduce economic costs was highlighted, including importance for policymakers to consider secondary impacts when designing and implementing climate change policies.

The following discussion included the importance of identifying primary and secondary costs of impacts. Limitations of the model used for the study were noted including the narrow characterisation of the agriculture sector and the paucity of input data in Ireland. It was noted that future analysis should take a much broader

perspective of agriculture in Ireland. Interpretation of the analysis was discussed including mechanisms to develop just-transition policy.

Niall McInerney presented on the modelling of macroeconomic impacts of the 3rd iteration of core modelling scenarios using the Central Bank model. The level of investment required to meet decarbonisation targets provided by TIM was presented. Results analysed the economic impact of this investment in the Irish economy up to 2050. Limitations of the modelling were presented.

Discussion included the economic impacts of the transition from ICE vehicles to EVs and the ability of the model to include price volatility and wider costs. It was noted the model did not take account of equity concerns and the analysis focused solely on the economic rational.

4. Macroeconomic effects of reaching climate neutrality by 2050

John Fitzgerald presented on the macroeconomic impacts of core modelling scenarios. The presentation outlined a methodology for quantifying the macroeconomic implications of the carbon budgets with national and international considerations. Macroeconomic components of achieving climate neutrality including decarbonization of the energy system and achievement of net-zero by the agricultural & land-use sectors were presented. The temporal disparity between cost outlay and receipt of financial benefits was noted. Additional data requirements to complete the assessment was noted.

The discussion included the future costs to the state versus to households and businesses, and the implications to consumers of a maturing EV market. Agricultural costs and future land-use requirements were raised, along with their ability to include in macroeconomic modelling. Assumptions and constraints of the core modelling scenarios were discussed and the importance of dialogue with core modelling teams was highlighted. Costs and barriers to infrastructure development identified from modelling were noted. Mechanisms for the accounting of the value of wetland and peatlands were raised, and the ability for macroeconomic modelling to incorporate value added services from ecosystems.

The CBWG economists requested guidance from the Council as to which of the core scenarios from the 3rd iteration should be prioritised for macroeconomic and economic analysis and final reporting.

New Action: Secretariat to relay Council guidance on selected scenarios for economic analysis to relevant teams and to schedule bilateral meetings with CBWG economists and core modelling teams to address queries as required.

5. Energy additional modelling

Emma Lynch (EL) presented on the additional analysis of the 3rd iteration modelling results by the NEMF model. The presentation outlined the additional testing approach including updates between the 2nd and 3rd iteration of modelling and the impact on the outputs, projections of emissions for energy, transport, residential and industry sectors, and a summary of considerations for carbon budget scenarios. The presentation highlighted the risks involved when following the current WEM and WAM scenarios, including delay in implementation of measures critical for the achievement of carbon budgets.

In the discussion that followed it was noted that there is a substantial gap between the climate action plan delivery and what is needed to reach climate neutrality, and this could lead to failure to achieve emission reduction targets.

6. Follow on discussion on Carbon Dioxide Removal (CDR) Considerations

Oliver Geden (OG) presented on CDR considerations for Carbon Budgets. The presentation outlined the main characteristics and methods of CDR, highlighting the importance of conventional CDR. The emerging diversity in indicators of CDR development was presented noting that CDR deployment is not yet considered within national UNFCCC Nationally Determined Contribution proposals. CDR policy and modelling issues related to GOBLIN and TIM scenarios were presented including sectoral allocation of CDR.

The discussion included incorporation of CDR into national inventories and international reporting.

7. Next Steps

The Secretariat presented final steps of the workplan including an update and next steps of the Carbon Budgets Working Group Outputs Report. It was noted that the CBWG members final report and input to the Scenario Dialogue Tool was due by September 30th. The Secretariat requested that CBWG member to contact the Secretariat if they envision any issues with this timeline. The Secretariat also presented next steps and timelines for the Council to deliver their Carbon Budget proposal. It was noted that while this was the last meeting, CBWG members may be requested to contribute to further aspects of the proposal process. Lastly, the Secretariat noted that a review of the Carbon Budgets process would commence in Q2 2025 to provide lessons learned, and CBWG members feedback would be greatly appreciated.

8. AOB

The Secretariat thanked the CBWG members for their contributions and time given to the CBWG meetings¹.

9. 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	Closed ST facilitated a discussion on the latest update to the inventory with DS, CD, the Secretariat, and the EPA inventories and projections teams. DS provided 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	Closed Secretariat requested emissions reductions to be presented in the context of changes from a 2018 baseline in final reporting.
29	29/08/24	Hold discussion between Secretariat, GOBLIN and FAPRI on the appropriate combination of FAPRI and	Secretariat and CBWG Members	Sep 2024	Closed Call scheduled for Monday the 23 rd of September.

¹ Approval of final minutes on the authority of the Chair.

		GOBLIN agriculture and land use scenarios.			
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	Closed Discussion held during CBWG Meeting No.18 developed a shared understanding allocation of emissions savings from BECCS with savings to be allocated to the energy sector. Further bilateral discussions on core modelling results are scheduled for late September and the Secretariat requests that the relevant teams provide specific detail on the allocation of emissions savings from BECCS in their final reporting.
31	29/08/24	Secretariat will liaise with each CBWG member individually on the submission their final outputs report by the 30 th of September	Secretariat and CBWG Members	Sep 2024	Closed Secretariat have been in contact with each CBWG member regarding the submission their final outputs reports by the 30 th September. Secretariat request that CBWG members reach out if any further guidance on reporting is required or if they foresee any difficulty with submission by the requested deadline.
32	18/09/24	Secretariat to relay Council guidance on	Secretariat and CBWG Economists	Sep 2024	Closed Secretariat met with CBWG economists on

		<p>selected scenarios for economic analysis to relevant teams and to schedule bilateral meetings with CBWG economists and core modelling teams to address queries as required.</p>			<p>the 30th of September to relay Council guidance on selected scenarios for economic analysis. Additional bilateral meetings were scheduled as required in early October with bilateral meetings with CBWG economists and core modelling teams to address any follow up queries.</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------