



Climate Change Advisory Council Meeting –Carbon Budgets Working Group

Meeting 12

APPROVED MINUTES

Date: 22nd March 2024

Start time: 13:30

Venue: EPA officers, Clonskeagh and Video Conference Meeting

Present: In person: John Fitzgerald. On MS Teams: James Murphy, Oliver Geden, Kelly de Bruin, Emma Lynch, Niamh Garvey, David Styles, Kian Mintz-Woo, Kevin Hanrahan, Stephen Treacy, Hannah Daly, Niall McInerney, Brian Ó Galachóir, Trevor Donnellan

Apologies: Jim Scheer, Jeanne Moore

Observers: Online: Jillian Mahon, Patricia King, James Moran

Secretariat: In person: George Hussey, Gina Kelly, Meabh Gallagher, Kieran Craven; Phillip O'Brien, Claire Camilleri. Online: Ciara Hilliard, Jodie Colgan

External presenters: Joeri Rogelj, Peter O'Sullivan, Barry Colleary, Karen Whittaker, William Brazil

1. Opening of meeting

The Secretariat noted that due to her appointment to the Climate Change Advisory Council, Yonne Buckley has resigned her position on the Carbon Budgets Working Group (CBWG). James Moran from ATU will be appointed to take her place with Eamon Haughey as an alternate for when James is unavailable to attend. JM will be joining as observer until the Council has formally appointed him as a member the CBWG..

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 accepted by the CBWG.

1.3 Actions

A number of actions remained open from the last meeting and progress has been made against these. Action 12 relating to a proposed thematic topic on planetary boundaries was proposed by the Secretariat to occur through their horizon scanning programme which is available to invited attendees. Andrew Fanning from the Doughnut Economics Lab has been scheduled to give a talk on 10th April. An invite for this talk will be extended to CBWG members, and this action was proposed to close.

Action 14 included organisation of bilateral meetings between Secretariat and the three core modelling teams to discuss Council feedback following the first iteration of modelling. These bi-laterals were held since the last meeting on the 7th of March and it was proposed to close this action.

For Action 15, a request for clarification on role of the CBWG in providing the results of modelling scenarios to Council was made. The Secretariat referred CBWG members to the Terms of Reference of the group which outlines the role of the CBWG in terms of providing the evidence base and the Councils role in proposing the Carbon Budgets. These roles as defined in the Terms of Reference will be reiterated to Council at their April meeting. It was proposed to close this action following the April CCAC meeting.

Action 16 involved a request for more discussion within the CBWG on the practical technical feasibility of various scenarios. This will be covered through the accompanying descriptive narrative on scenarios that will be provided by core modellers for the second iteration of modelling, but can include comments from all members of CBWG in relation to criteria relevant to the Climate Action and Low Carbon Development Amendment Act on the various scenarios being put forward for consideration by the Council. This action was proposed to remain open for further discussion and action.

Action 17 related to the confirmation of timeline for delivery of modelling results. Emails were sent to modelling teams and responses were received. It was proposed by the Secretariat to hold bilateral meetings with additional modelling teams, to confirm delivery timelines. This action remained open.

Action 18 related to the inclusion of an additional modelling team member in the CBWG. The Secretariat agreed an additional member of the modelling team was welcome when presentations from that team were being made. It was proposed to close this action.

There were no objections to the proposed closure of actions.

2. Follow on discussion on methane and climate neutrality

Joeri Rogelj presented on insights from his latest paper on non CO₂ reductions implied by IPCC estimates of remaining carbon budget. This included an overview of carbon budgets, IPCC AR6 carbon budget estimates, and non-CO₂ reductions and implications. The five components of IPCCs framework for carbon budgets including historical warming, transient climate response to cumulative emissions, zero emission commitment, projected future non-

CO₂ temperature contribution and unrepresented Earth system feedbacks were presented. The assumed relationship between warming and non-CO₂ contributions implies that substantial reductions of non-CO₂ emissions are made in the future. If these are not achieved, there is a need to substantially decrease the estimates of the remaining CO₂ carbon budget.

Following the presentations discussions included the allocation of different gases in carbon budgets, marginal abatement costs and hydrogen leakage. Considerations of equity related to GHG emissions and economics were raised. The role of integrated assessment models and the targets of climate neutrality and net zero were discussed. Changes to methane inventories through advancements in data gathering were highlighted. Zero emission commitment and error estimations in the modelling were clarified. Following the discussion JR left the meeting.

3. Discussion of potential NTA analysis for Carbon Budgets

For this agenda item, Peadar O’Sullivan and William Brazil from the NTA joined the meeting in person, with Barry Colleary and Karen Whitaker joining online. An overview of the timeline of the carbon budget programme was briefly outlined by the Secretariat and a discussion on how the NTA can input to modelling iterations 2 and 3 of the work programme. POS gave an overview on the work of the modelling work by the NTA previously provided to the CBWG in July 2023, including updates since the last presentation.

Discussions involved the inputs and assumptions of the existing NTA model, including sectoral emissions ceilings and fleet modelling. The importance of future changes to Ireland’s tax regime was highlighted, with the need for the raising of government revenue to focus on minimising the use of fossil fuels. Trends in car ownership and the possible drivers behind this were raised. Regarding the CB programme, the existing areas of alignment of the NEMF an NTA modelling were outlined. The utility of the NTA modelling for sense checking the relevant outputs of the TIM were noted. The possibility of a further meeting between NTA and relevant modelling teams was outlined. Following the discussion, contributors were thanked and colleagues from the NTA left the meeting.

New Action: Secretariat to schedule a trilateral discussion with the NTA and the TIM and SEAI CBWG members.

4. Agree inputs, parameters and assumptions for 2nd iteration of Modelling

The Secretariat outlined the general Council guidance points that were presented to the modelling teams at last meeting and through subsequent bilateral meetings. CBWG members were reminded of the short accompanying descriptive narrative that modelling teams have been requested to provide on scenarios following the 2nd iteration of modelling. This narrative is proposed to include commentary on technologies, rates of deployment, costs, assessment of budget overshoot, accounting relevant to NCAP24 targets, role of negative emissions and any further commentary on potential pitfalls and practical implications. The possibility of interaction and alignment of assumptions of related models, particularly between FAPRI and GOBLIN, was proposed.

Action 16 related to the practical technical feasibility of modelled scenarios was raised again by the Secretariat. A proposal was made to develop an excel tool to compile feedback on individual scenarios, or group of scenarios, from members of the working group with a view to complementing the accompanying descriptive narrative that will be made by the modelling teams and provide an opportunity for all CBWG members to elaborate on potential impacts and opportunities under the various scenarios. Feedback from all members of the working group was invited on this proposal. CBWG members raised concerns regarding the framing of the document as commentary on feasibility and that broadening the scope to comment on considerations relevant to the Act would be more appropriate. A template of this comment document will be shared with the group for feedback at the April CBWG meeting.

Discussions included mechanisms for the division of abatement costs between sectors and the potential for inclusion in models of determining factors such economics, politics, culture and behaviour. The implications of the short timeframe for implementation of actions to achieve carbon budgets was raised. Natural capital accounting and limitations to the determination of scenario feasibility were noted. Recent research conducted on the resources and skills requirement in Ireland for the necessary transition was highlighted.

The limitations of model forecasts were stressed, with the importance for model outputs to be contextualised with the knowledge and experience of the modelling teams and broader CBWG. It was noted that the feasibility of scenarios was difficult to determine by the group, but a narrative on the difficulty of achieving these scenarios, identifying any known barriers, was of value for Council deliberation. It was raised that carbon budgets are waypoints that should lead towards climate neutrality and the identification of impacts of potential futures to criteria relevant to the Act are of use to Council.

New Action: Secretariat to present template of comment document to CBWG at the next meeting.

5. Carbon Budgets Work Plan

The work plan was shared with the working group focussing on the 2nd iteration of modelling with results due in May. Core modelling results for the 2nd iterations are due 23rd May, with 3rd iteration results due 29th August. The need for coordination between FAPRI and GOBLIN prior to models being finalised for the 2nd iteration was highlighted.

The remaining meeting schedule was presented to the CBWG. New thematic topics included in the schedule are a paper on aspects of aviation and maritime emissions by the Secretariat and a discussion on biodiversity considerations to be led by JM. Other proposed topics that may be scheduled include GHG- air pollution interactions and an economic assessment of climate change impacts and adaptation options in Ireland.

6. Next Steps and Agenda for next meeting

The April meeting will have a presentation from NESC on Just transition principles to inform a follow-on discussion on their consideration as part of the Carbon Budget Process. SEAI will present an update on the ongoing decarbonised electricity system study (DESS) they have

been involved with to aid in the determination of Ireland's pathway to achieve a net-zero electricity system. Karl Richards from Teagasc will present on their latest research on mitigation technologies for AFOLU and implications for carbon budgets

In May, SEAI will return to present their final results from DESS. The remainder of the meeting will be focussed on the presentation of results from the 2nd iteration of core modelling (FAPRI, GOBLIN and TIM). Where possible, in person attendance for this meeting was requested. There was a proposal to circulate a poll to determine the best location to hold this meeting.

New Action: Secretariat to issue a poll to hold an in-person meeting in an alternative location

7. AOB

All contributors were thanked and wished a pleasant Easter Break

8. CB WG Actions Log

Action Number	Date Raised	Description	Owner	Due	Status
12	18/01/24	Secretariat to follow up on planetary boundaries as thematic topic	CCAC Secretariat	Mar 2024	Propose to Close <i>Doughnut Economics Horizon Scanning Event scheduled for 10/4/24 10:00-11:30 with invitation extended to the members of the CBWG.</i>
13	18/01/24	Secretariat to provide guidance from the Council with regards to the 2 nd iteration of modelling and analysis following the February CCAC meeting	CCAC Secretariat	Feb 2024	Closed Council feedback provided to CBWG in Feb meeting
14	29/02/24	Secretariat to schedule bi-laterals with each of the Core modelling group to discuss Council feedback in more detail.	CCAC Secretariat	Mar 2024	Propose to Close <i>Bi-laterals with each of the three core modelling teams held on the 7th of March.</i>
15	29/02/24	Request for clarification on the role of the CBWG in terms of presenting a range of scenarios for Council consideration as opposed to proposing a particular feasible pathway.	CCAC Secretariat	April 2024	Open CBWG referred to ToR of the group. ToR of the CBWG will be raised with CCAC at their April meeting. Proposed to close following the April CCAC meeting.

16	29/02/24	Request for a more detailed discussion within the CBWG on the practical technical feasibility of various scenarios	CBWG Members	April 2024	Open Secretariat to circulate template for commentary on impacts and opportunities of the various scenarios by CBWG members
17	29/02/24	Core and additional modelling teams to confirm delivery timelines for the 2 nd iteration of modelling and analysis in line with Carbon Budgets Workplan	CBWG Members	Mar 2024	Open Email correspondence with modelling groups. Bilateral meetings to be scheduled with additional modelling teams.
18	29/02/24	Chair to consider the participation of an additional member from the FAPRI modelling team within the CBWG.	Secretariat	Mar 2024	Proposed to Close Additional member can join the meeting when presentations by the FAPRI modelling team are being made
19	22/03/24	Secretariat to schedule trilateral discussion with NTA, TIM and SEAI CBWG members.	Secretariat	Apr 2024	Open
20	22/03/24	Secretariat to share template of feedback document to CBWG at the April meeting	Secretariat	Apr 2024	Open
21	22/03/24	Secretariat to issue a poll to hold an in-person meeting in an alternative location	Secretariat	May 2024	Open

