



Carbon Budgets Modelling Workshop Session 1: Closing Summary

18th October 2022

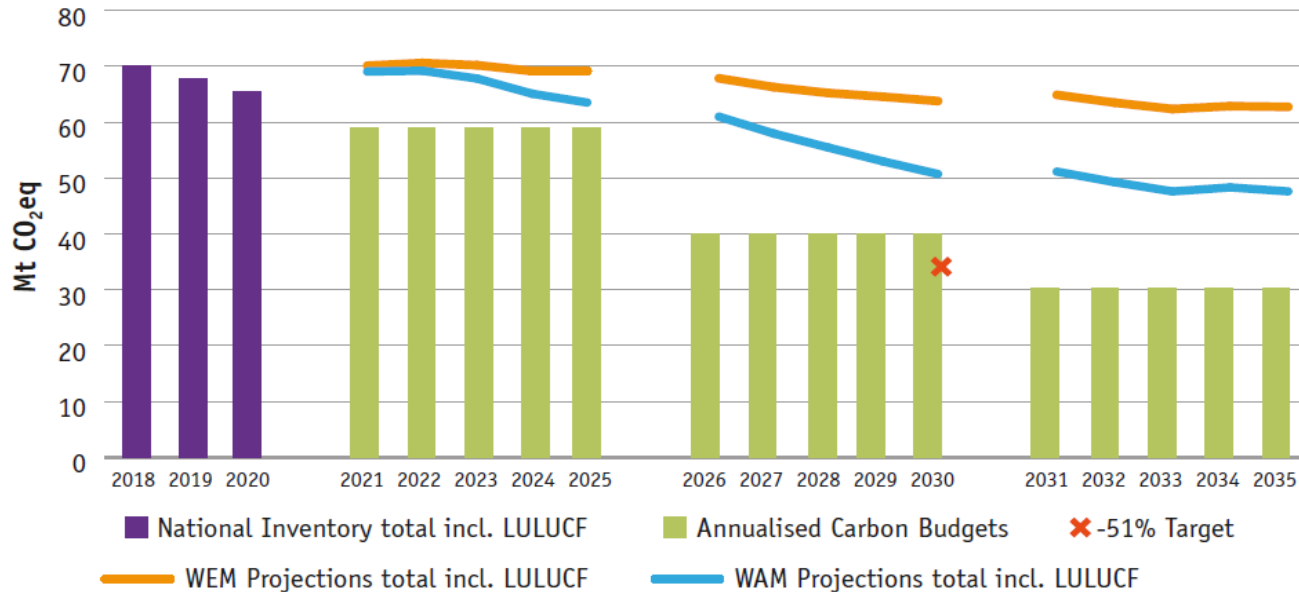
Modelling & Development of the 1st Programme of Proposed Carbon Budgets



- Modelling of carbon budget scenarios was carried out by three groups;
 1. University College Cork (UCC) TIMES Ireland Model (TIM),
 2. Teagasc Food and Agriculture Policy Research Institute (FAPRI) Ireland model, and
 3. University of Limerick (UL) Goblin model.
- Different levels of mitigation in the broader energy sector (electricity, heat, transport and industry) were modelled by TIM.
- Different levels of mitigation effort were modelled in the agriculture and land use sector by both the Teagasc FAPRI-Ireland model and the Goblin model.



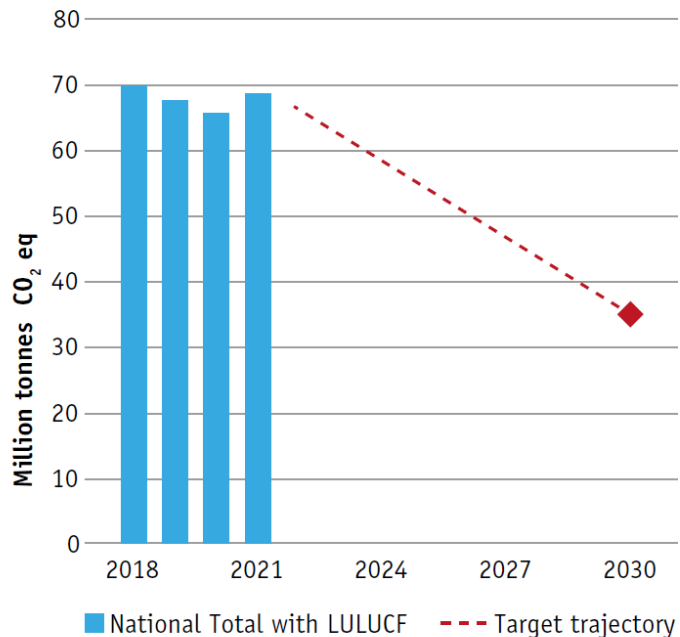
Carbon Budgets and GHG Projections



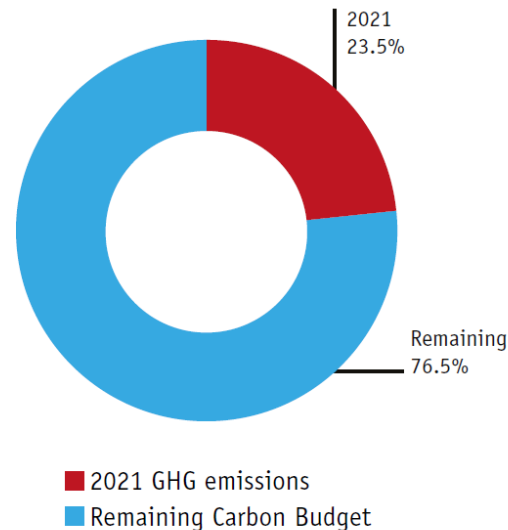
The agreed Carbon Budgets in the context of recent historic emissions and projected emissions data (Mt CO₂ eq) (including LULUCF) under the 'With Existing Measures' and 'With Additional Measures' scenarios

Figure 2, Ireland's Greenhouse Gas Emissions Projections 2021-2040 (EPA June 2022)

Carbon Budgets and GHG Inventories



Carbon Budget 1 – 295 Mt CO₂eq



Provisional National total emissions for 2021 (69.29 Mt CO₂eq) have used 23.5% of the Carbon Budget for '21-'25 (295 Mt CO₂eq), leaving 76.5% of the budget available for the succeeding four years, requiring an 8.4 % average annual emissions reduction from '22 – '25 to stay within budget

Figure 3, Ireland's provisional Greenhouse Gas Emissions 1990-2021 (EPA July 2022)

2nd Carbon Budget Programme (2022 – 2024) High Level Workplan



- **Carbon Budgets modelling workshop** to consider and review the evidence required and the analytical tools available for the 2nd Carbon Budget Programme.
- **Macroeconomic analysis** will need to be developed further for the the 2nd Carbon Budget Programme in order to assess the impacts of the transition.
- The CCAC will submit analysis requests to relevant Government Departments and Agencies in line with the **provisions of the MoU**.
- Establish a **Carbon Budgets Working Group** to inform the planning and development of modelling scenarios.
- A period of **scenario modelling during Q4 2023 – Q3 2024** to inform proposals for the 2nd Carbon Budget Programme is anticipated.
- The CCAC is required to prepare and agree the final proposal for **Carbon Budget 3 (2031 – 2035)** and to develop the provisional proposal for the **Carbon Budget 4 (2036 – 2040)** for submission to the Minister of Environment Climate and Communications by **Q4 2024**.

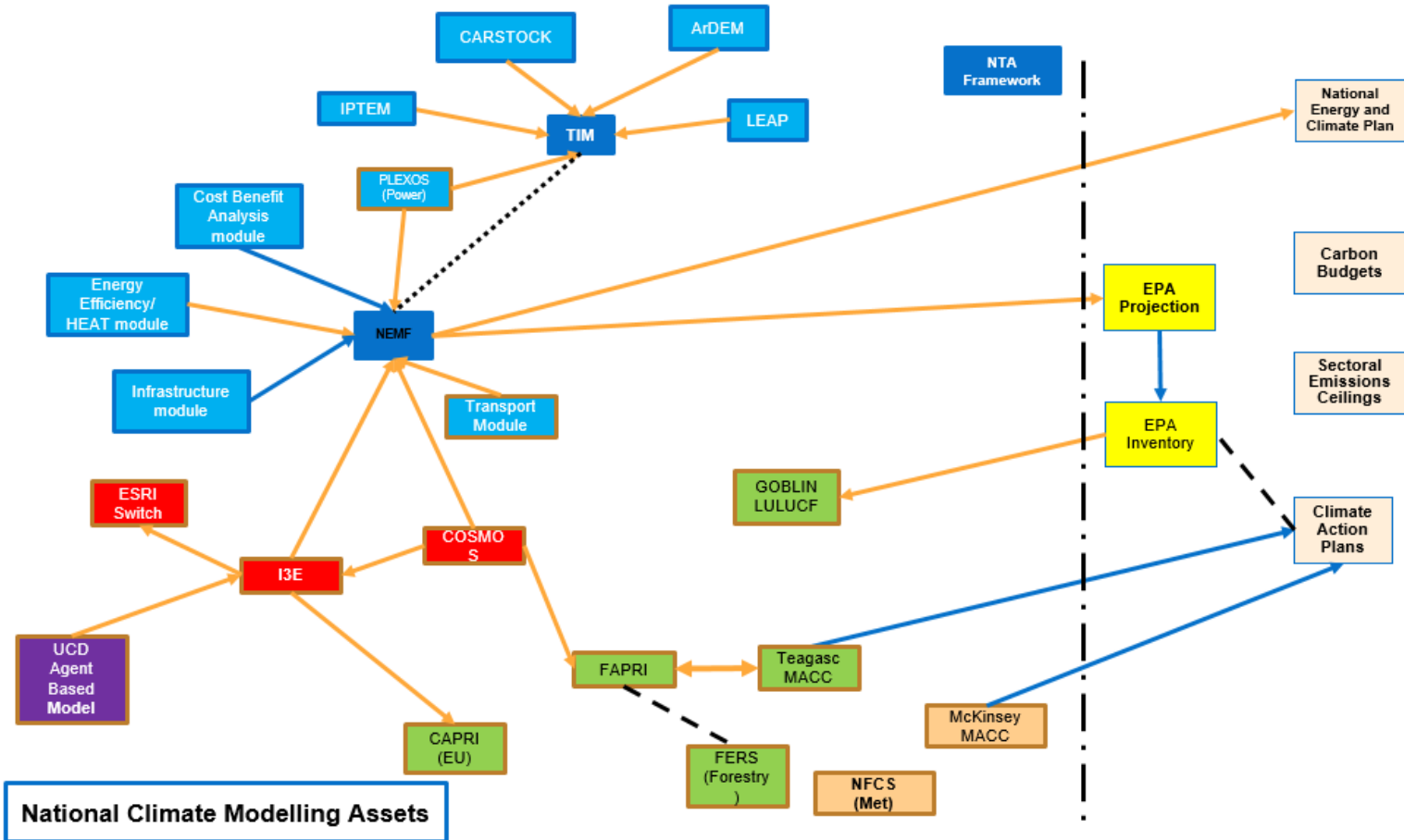
Breakout Session 1: Sequencing of programme of work for carbon budget



Key Inputs:

- Engagement with modelling experts
- Modelling requests under MoU
- New Carbon Budgets Working Group
- Contracted support and research for modelling and in other areas
- Inventories and projections
- Relevant research and pathways assessments
- Scenario questions, modelling inputs and modelling analysis

Breakout Session 2: Model Integration/Coupling



National Climate Modelling Assets

Joining details for Session 2 (11:45-13:35)

You have received a calendar invite with the link to register for this meeting. Please note you will need to register in order to receive the link to join Session 2.

**You can visit the Council's website
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