

Carbon Budgets – Irish Context

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Presentation Summary

- Carbon budgets are not new to Ireland

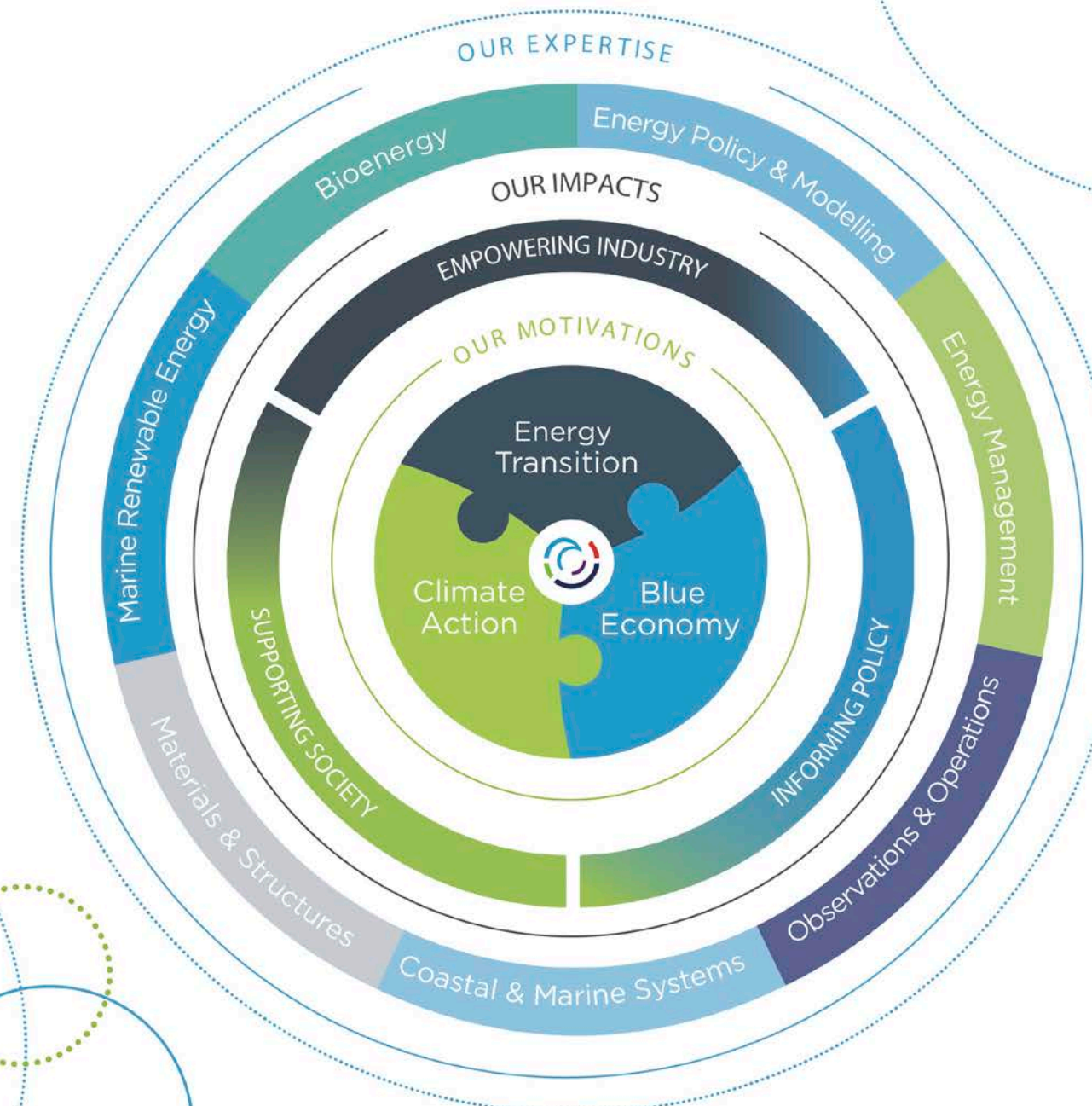
- Ireland's **mandatory non-ETS** carbon budget **2013-2020** is **338 Mt CO_{2eq}**.

- Ireland's **mandatory non-ETS** carbon budget **2021-2030** is **378 Mt CO_{2eq}**

- Carbon Budget **2015-2050 = 998 MtCO₂** from National policy position

- MaREI modelled **carbon budgets 128 – 766 Mt CO₂** in period 2015-2070

- Equivalent to **global** carbon budgets **200 Gt – 1,200 Gt** in period **2015-2100**



EU 2030 Climate and Energy Framework

ETS GHG Emissions Reductions

- Targets imposed on **companies** (large emitting sites across EU) collectively
- 1.74% p.a. by 2020 – **2.2% p.a. post 2020** (rel. 2005)

Non-ETS GHG Emissions reduction

- Targets on individual **Member States**
- Overall goal 10% reduction by 2020 – **30% reduction by 2030** (rel to 2005)

Renewable Energy

- **No mandatory targets** on individual **Member States** for 2030
- 2020 targets **carried forward** as minimum
- Overall EU mandatory target **32% by 2030**

EU 2030 Climate and Energy Framework

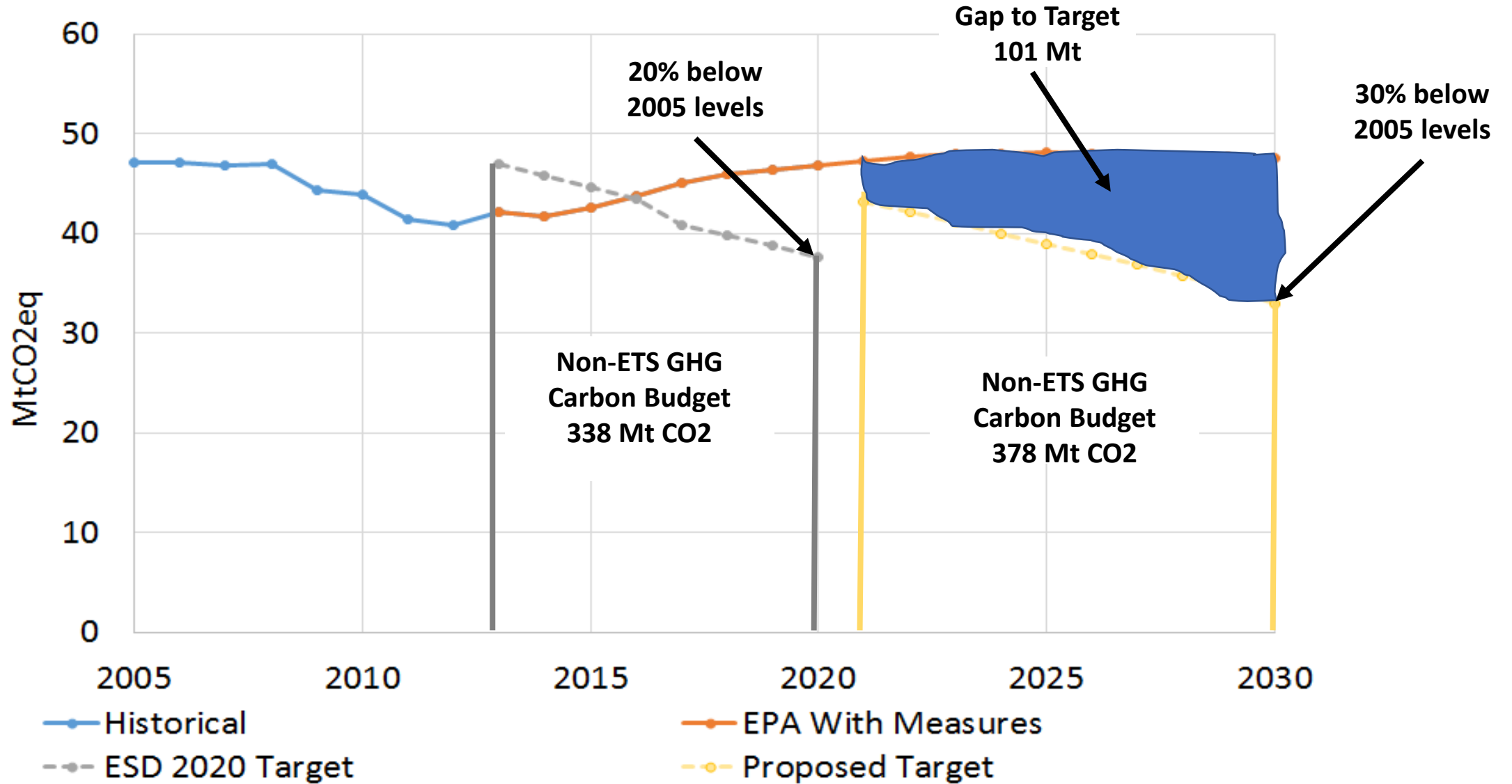
GHG 40% below 1990
by 2030

- EU ETS Directive 2018/410
- Effort Sharing Decision EU Regulation 2018-842

ETS GHG 43%
below 2005 by
2030

Non-ETS GHG
30% below 2005
by 2030

Ireland's Non-ETS GHG Carbon Budgets



Climate Action & Low Carbon Development Act 2015

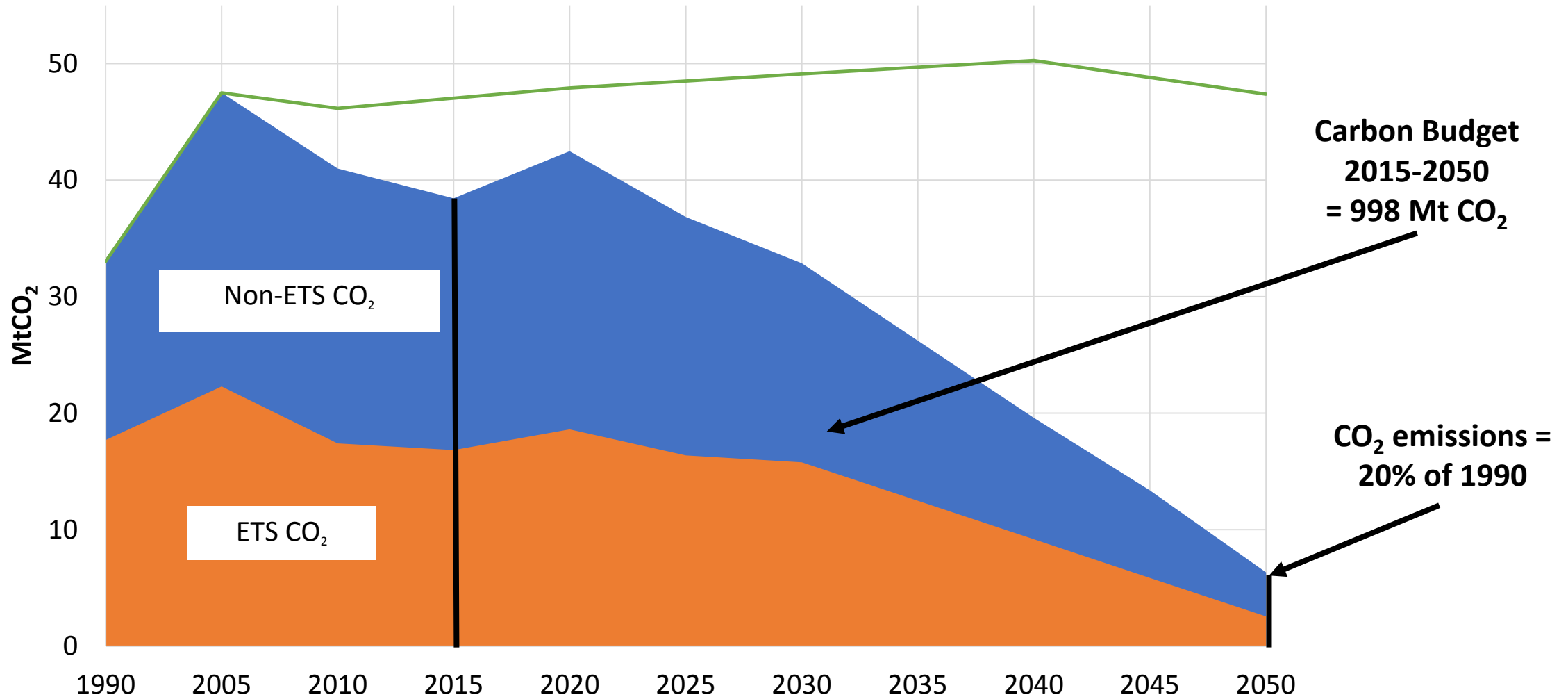
3. Low carbon transition

- *National mitigation plan shall have regard to ... policy of the Govt on climate change*

National Policy Position April 23 2014

- *an **aggregate reduction in carbon dioxide (CO₂) emissions of at least 80%** (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors; and*
- *in parallel, an approach to **carbon neutrality in the agriculture and land-use sector**, including forestry, which does not compromise capacity for sustainable food production.*

Ireland's Carbon Budget (National Policy Position)



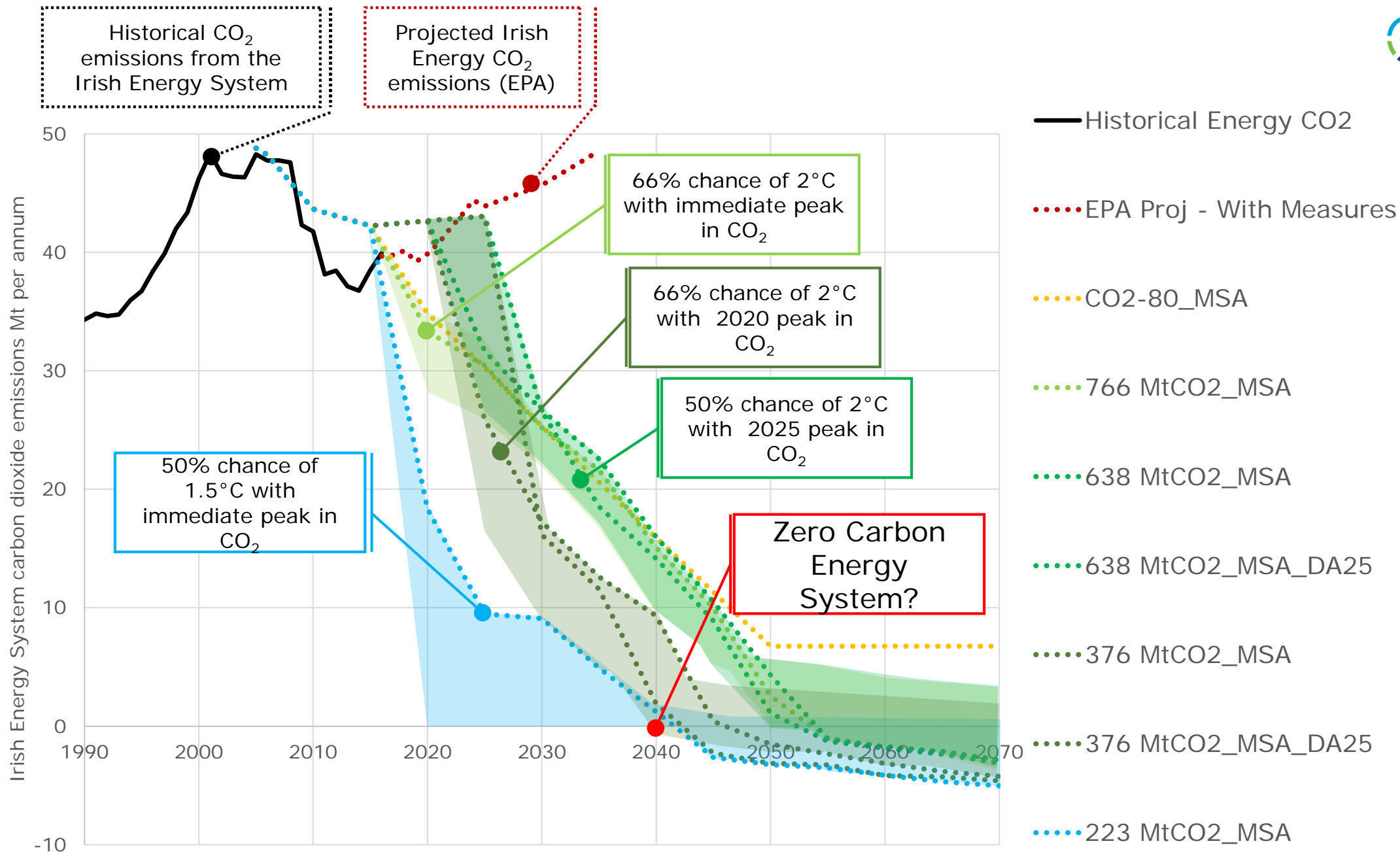
'Equitable' Carbon Budgets for Ireland

Global carbon budgets

- 590 Gt CO₂ – 1240 Gt CO₂ for 66% probability of limiting to 2° rise
- 200 Gt CO₂ – 700 Gt CO₂ for 50% probability of limiting to 1.5 ° rise by 2100

National Carbon Budgets

- Ireland has 0.064% of global population
- Equitable allocation suggests 0.064% of global carbon budget
- Ireland is not in significant carbon 'debt' (2 Gt CO₂ 1751-2015) < 0.064% 3,400Gt
- 38 Scenarios considered for a range of carbon budgets and constraints
 - 766 Mt CO₂ (global 1,200 Gt CO₂ budget)
 -
 - 128 Mt CO₂ (global 200 Gt CO₂ budget)



Glynn, J., Gargiulo, M., Chiodi, A., Deane, P., Rogan F., Ó Gallachóir, B., 2019. *Zero carbon energy system pathways for Ireland consistent with the Paris Agreement*. **Climate Policy** 19:1, 30-42. Available from [here](#)



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