



RED III Workshop

RTFO Administration Options

25th October 2023

(Ref: 457-23P1164)

ARTICLE 25

- Obligation on fuel suppliers to ensure:
 - (i) share of transport renewable energy at least **29 % by 2030**;
 - or
 - (ii) greenhouse gas intensity reduction of at least **14.5 % by 2030**
-
- Can reduce both, because crop-based contribution <7%
 - RED II was 14% renewable energy share of road and rail energy
 - RED III is expressed as the energy content of the ‘transport sector’, i.e. road, rail, and aviation & maritime

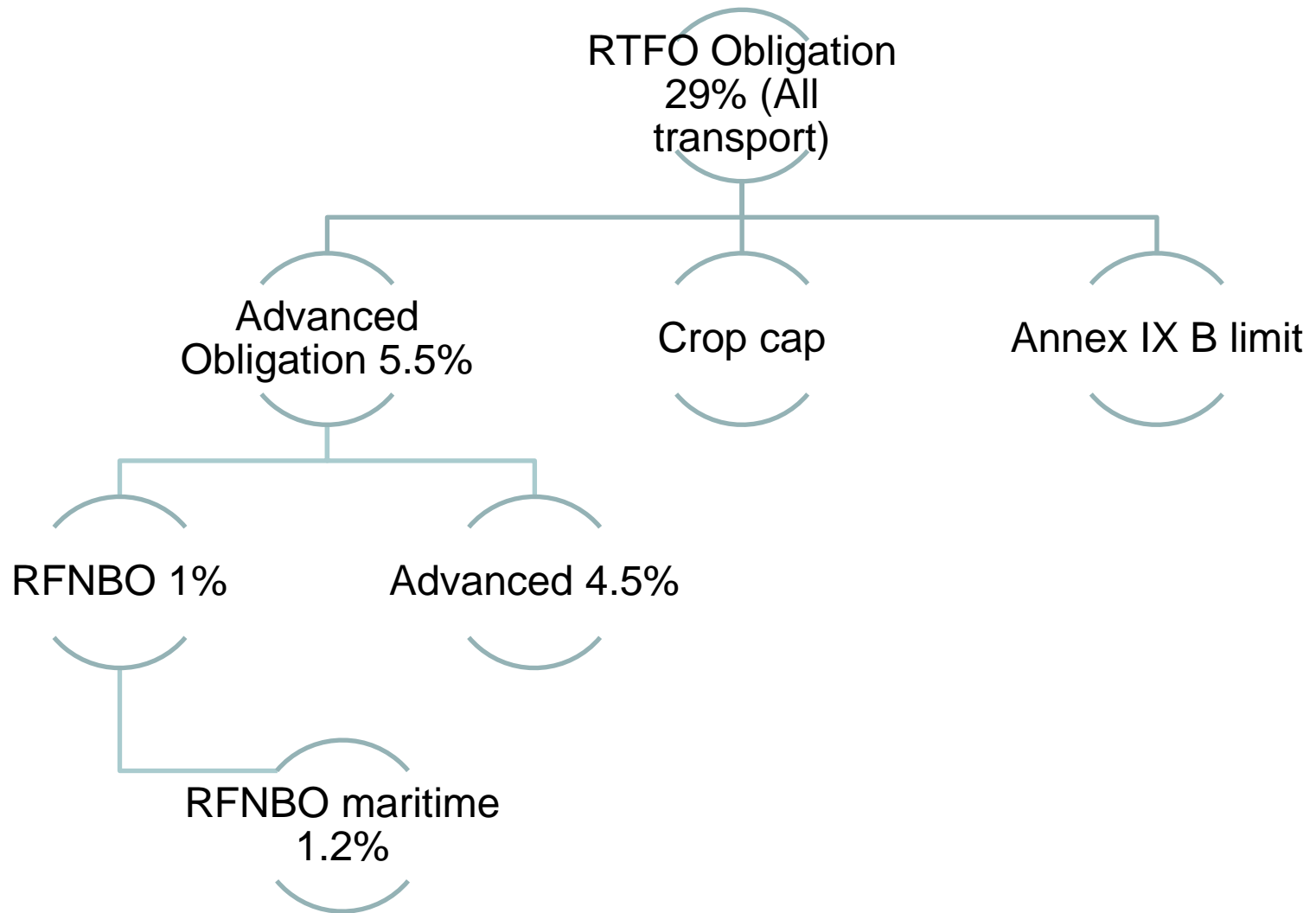
ENERGY BASED OBLIGATION (OPTION 1)

- The basis for administration relatively unchanged
 - Certs per MJ
 - Meet sustainability criteria and min. GHG savings thresholds (47 gCO_{2eq}/MJ(50%) or 37.6 gCO_{2eq}/MJ (60%))
 - Multipliers remain
- Some changes, and potential changes:
 - Electricity in transport included (definitely public, maybe private)
 - All transport fuels, in all sectors, may be obligated (e.g. jet kero in aviation, LPG, CNG and electricity in road), and may distinguish between fuels
 - Advanced obligation divided between advanced biofuels and RFNBOs
 - Requirement for RFNBOs in maritime

IMPLICATIONS

- Administratively
 - More Cert categories: for RFNBOs ('Pink Certs'?) and RFNBOs in maritime ('Blue Certs'?)
 - More account holders (e.g. *'Economic operators that supply renewable electricity to electric vehicles through public recharging points'*)
 - Need elec data – how?
 - What is 'obligated'? (Elec may be exempt from advanced obligation)
- Compliance requires significantly more renewable energy:
 - Obligation increases from 14% to 29%; and
 - Denominator increases significantly.

SUMMARY



CARBON INTENSITY BASED OBLIGATION (OPTION 2)

- Basis of administration:
 - ‘Credit’ per $\text{kgCO}_{2\text{eq}}$ savings achieved by sustainable transport energy (similar to SI 160 approach)
 - First, meet sustainability criteria and minimum GHG emissions savings thresholds
 - Then, carbon savings awarded based on carbon intensity, e.g. 100 MJ of biofuel with a CI of $10 \text{ gCO}_{2\text{eq}}/\text{MJ}$ is awarded $8.4 \text{ kgCO}_{2\text{eq}}$ savings.

Savings Achieved (%)

1.9%!

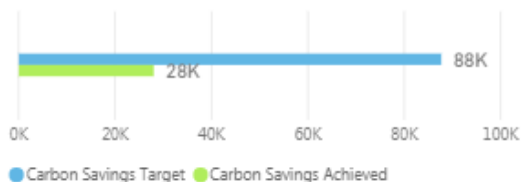
Goal: 6.00%

Savings Achieved (tCO2eq)

27,997!

Goal: 87,669

Carbon Savings Target and Carbon Savings Achieved



15,527,576,829

Energy (MJ)

1,433,148

Carbon Emitted (tonnes CO2eq)

27,997

Carbon Saved from Fossil & Bio...

0

Carbon Transfers (tonnes CO2eq)

0

UERS (tonnes CO2eq)

92.30

Carbon Intensity (gCO2eq / MJ)

Biofuel Carbon Performance

Fuel Type	Fuel Litres	Avg of Carbon Intensity (CO2eq/MJ)	Min of Lower Calorific Value (MJ/l)	Total Energy (MJ)	Total Carbon (tCO2eq)	Carbon Savings (tCO2eq)
Biodiesel	12,836,828	10.80	33.00	423,615,324	4,575.71	35,286.50
POME	1,076,881	16.14	33.00	35,537,073	573.49	2,770.55
SBE	269,898	8.00	33.00	8,906,634	71.25	766.86
UCO	11,490,049	10.37	33.00	379,171,617	3,930.96	31,749.09
Bioethano	2,804,077	35.28	21.00	58,885,617	2,077.27	3,463.87
ECCORN	1,061,719	34.33	21.00	22,296,099	765.33	1,332.73
NECCOR	656,453	29.00	21.00	13,785,513	399.78	897.44
WHEAT	1,085,905	40.00	21.00	22,804,005	912.16	1,233.70
Total	15,640,905	13.79	21.00	482,500,941	6,652.97	38,750.37

Fossil Fuel Carbon Performance

Fossil Fuels	Fuel Litres	Carbon Intensity (CO2eq/MJ)	Lower Calorific Value (MJ/l)	Total Energy (MJ)	Total Carbon (tCO2eq)	Carbon Savings (tCO2eq)
Diesel	351,695,604	95.1	36	12,661,041,744	1,204,065	-12,661
Gasoline	74,501,067	93.3	32	2,384,034,144	222,430	1,907
Total	426,196,671			15,045,075,888	1,426,495	-10,754

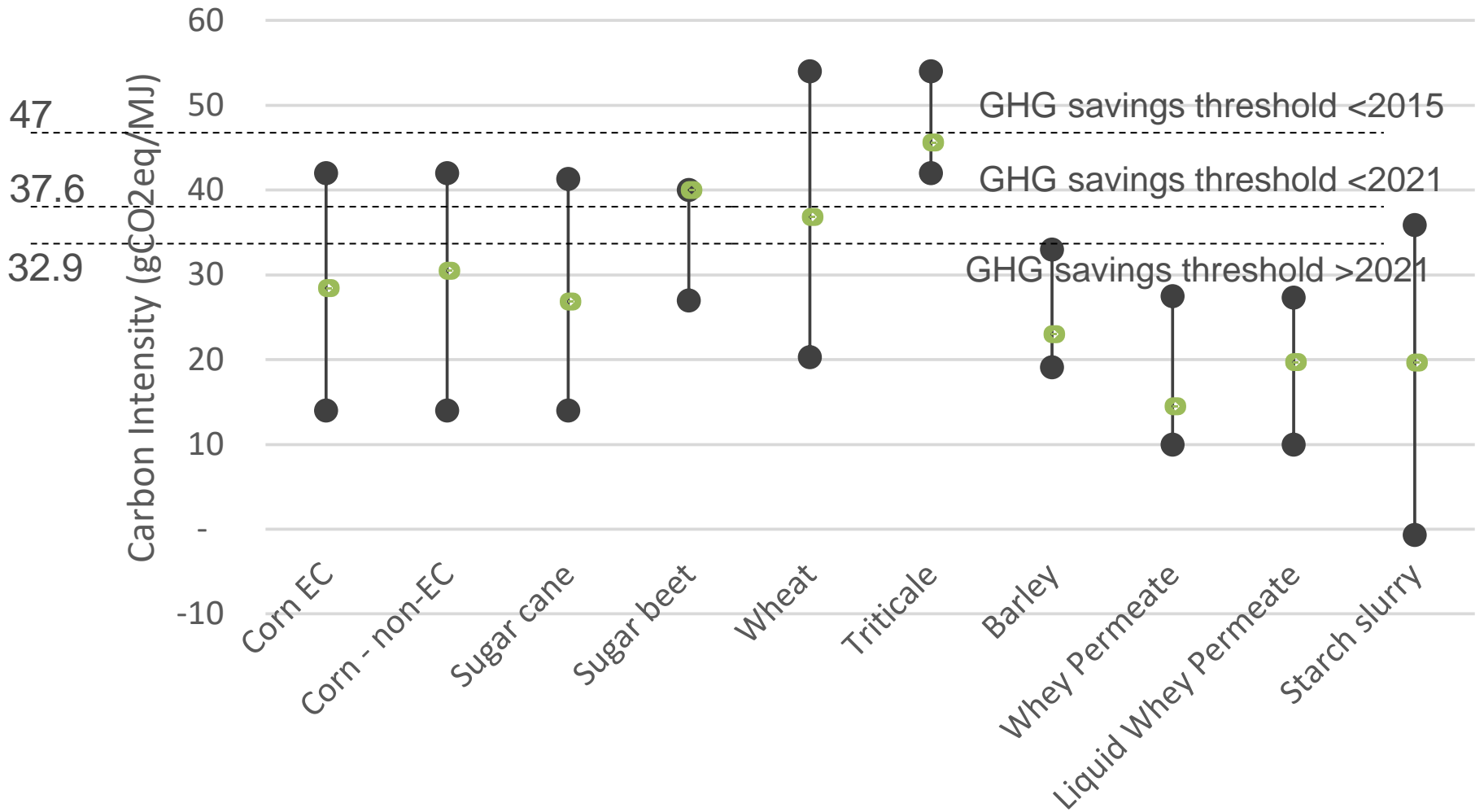
RED III – APPROXIMATE NUMBERS



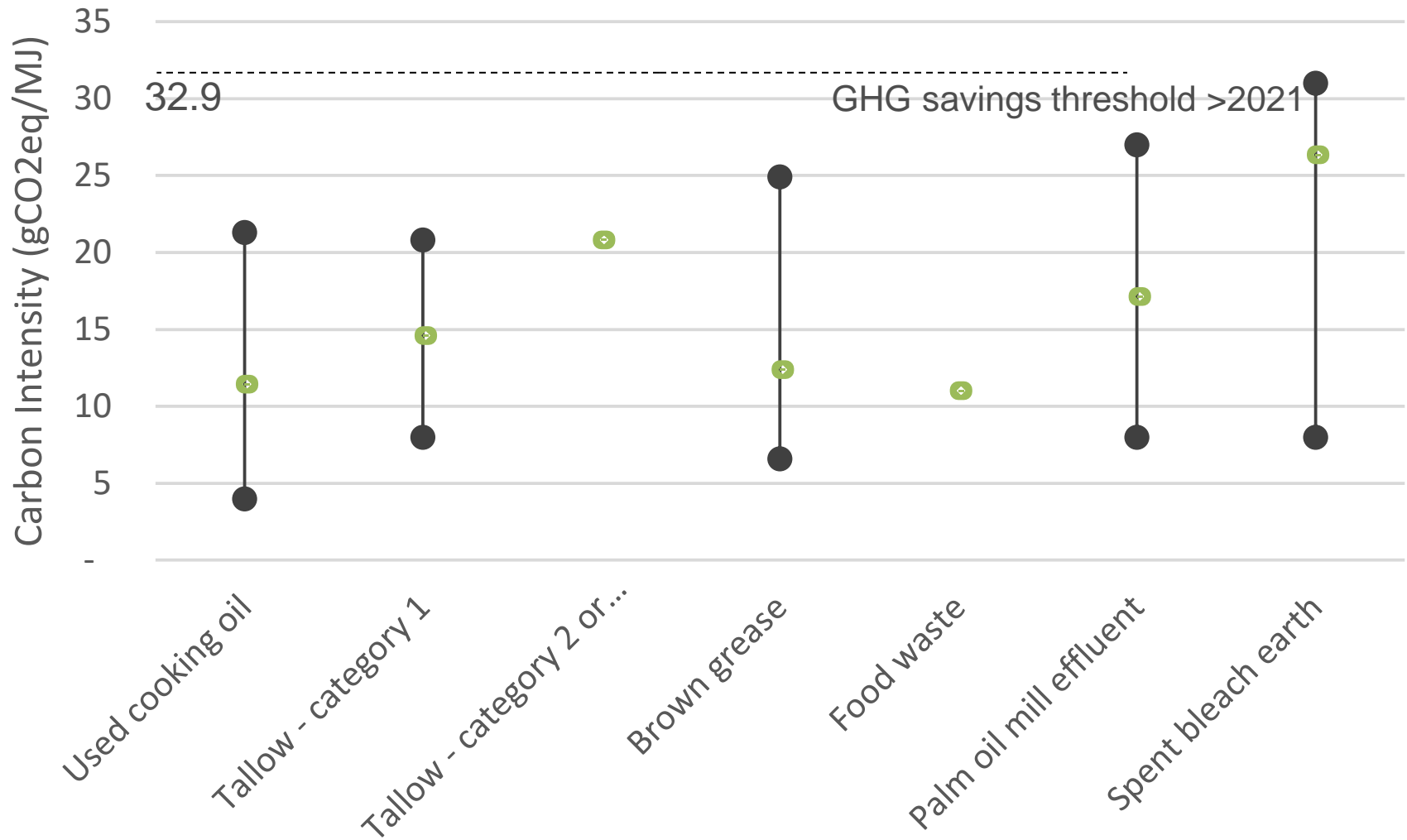
Fuel Type	GHG intensity (gCO _{2eq} /MJ)	RED III GHG intensity	RED III % Blend	RED II
Fossil fuel comparator / denominator	94	-	215 TJ	140 TJ
2030 target	80.4	14.5%	29%	14%
E10 / B20	81.4	13%	24%	38%

- Lots of assumptions on carbon intensity of fuels, multiple counting, the gasoline/diesel/electricity/CNG/LPG mix, and no Annex IX Part B limit

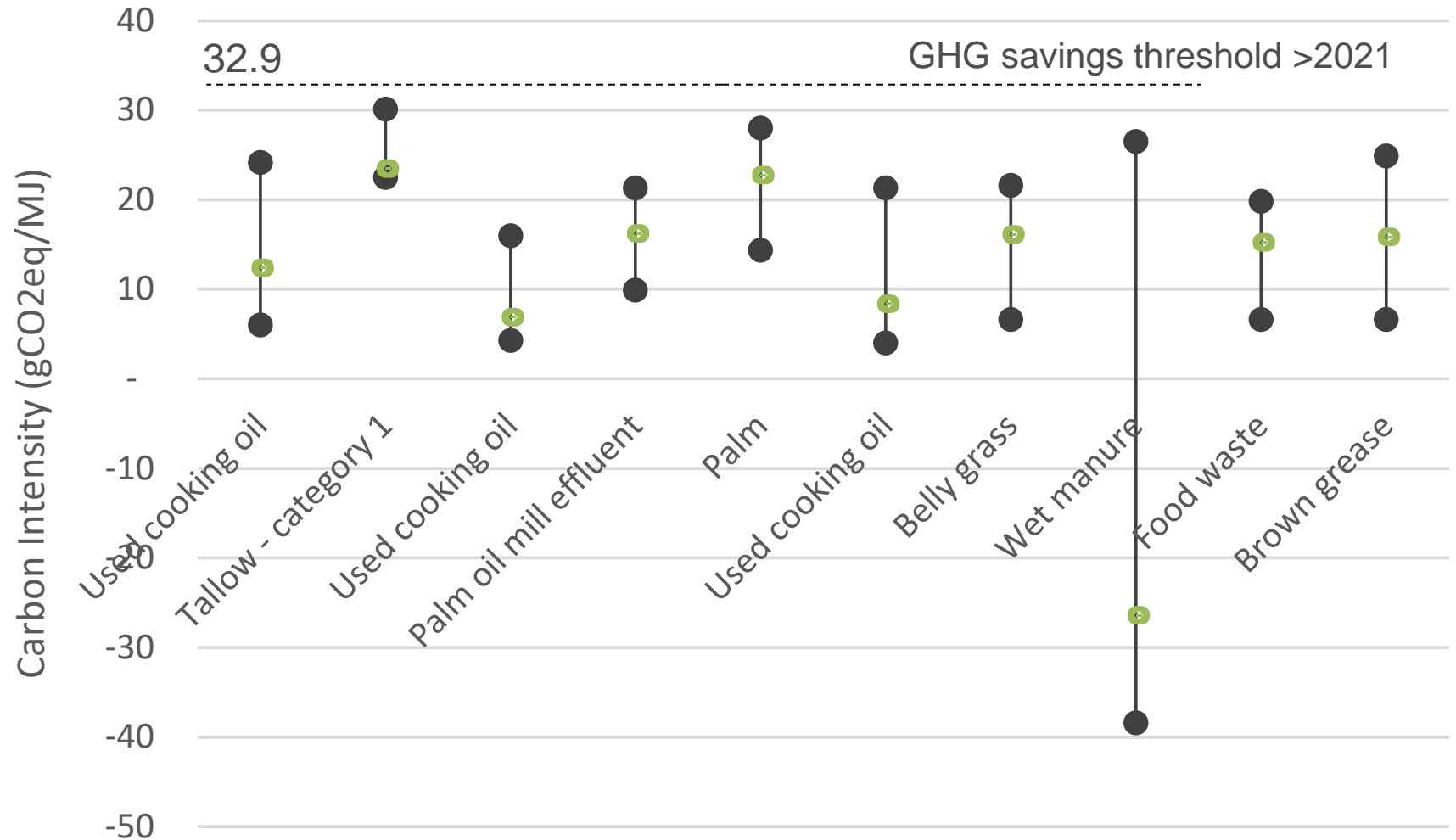
CARBON INTENSITY BIOETHANOL



CARBON INTENSITY BIODIESEL



CARBON INTENSITY HVO/CHVO/BIO LPG/BIO CNG

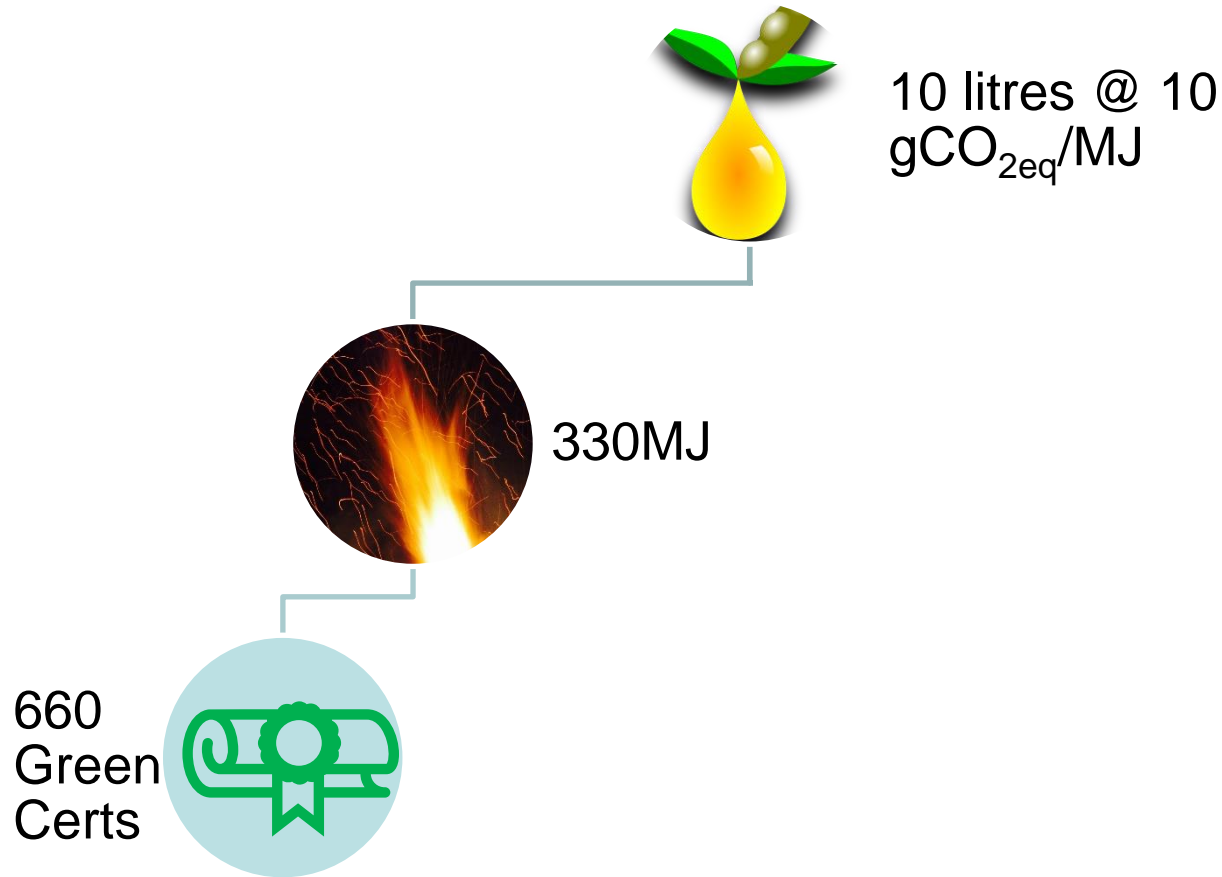


ARTICLE 25 – BLEND OBLIGATIONS

- If go with overall CI obligation, how accommodate:
 - Advanced biofuels (Part A Annex IX) and RFNBOs 1 % in 2025 and 5.5 % in 2030 (at least 1 pp RFNBOs 2030)
 - Crop cap
 - Limit on Annex IX Part B
- Certs and carbon savings separate or linked

QUESTION TO YOU

- How could a market for Certs and carbon savings operate?



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- How could dual system/market for Certs and carbon savings operate?

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Is?

- Certs on RTFO account reflect weighted average CI?

IMPLICATIONS

- Administratively
 - More difficult, but not too dissimilar to SI 160 and RTFO in parallel
 - More Cert (or carbon savings) categories: for RFNBOs ('Pink Certs'?) and RFNBOs in maritime ('Blue Certs'?)
 - More account holders
 - Carbon savings:
 - Carry over?
 - Buy-out per $\text{kgCO}_{2\text{eq}}$?
 - Calculation for electricity

THANK YOU

