



BOS Briefing Session

30th March 2022

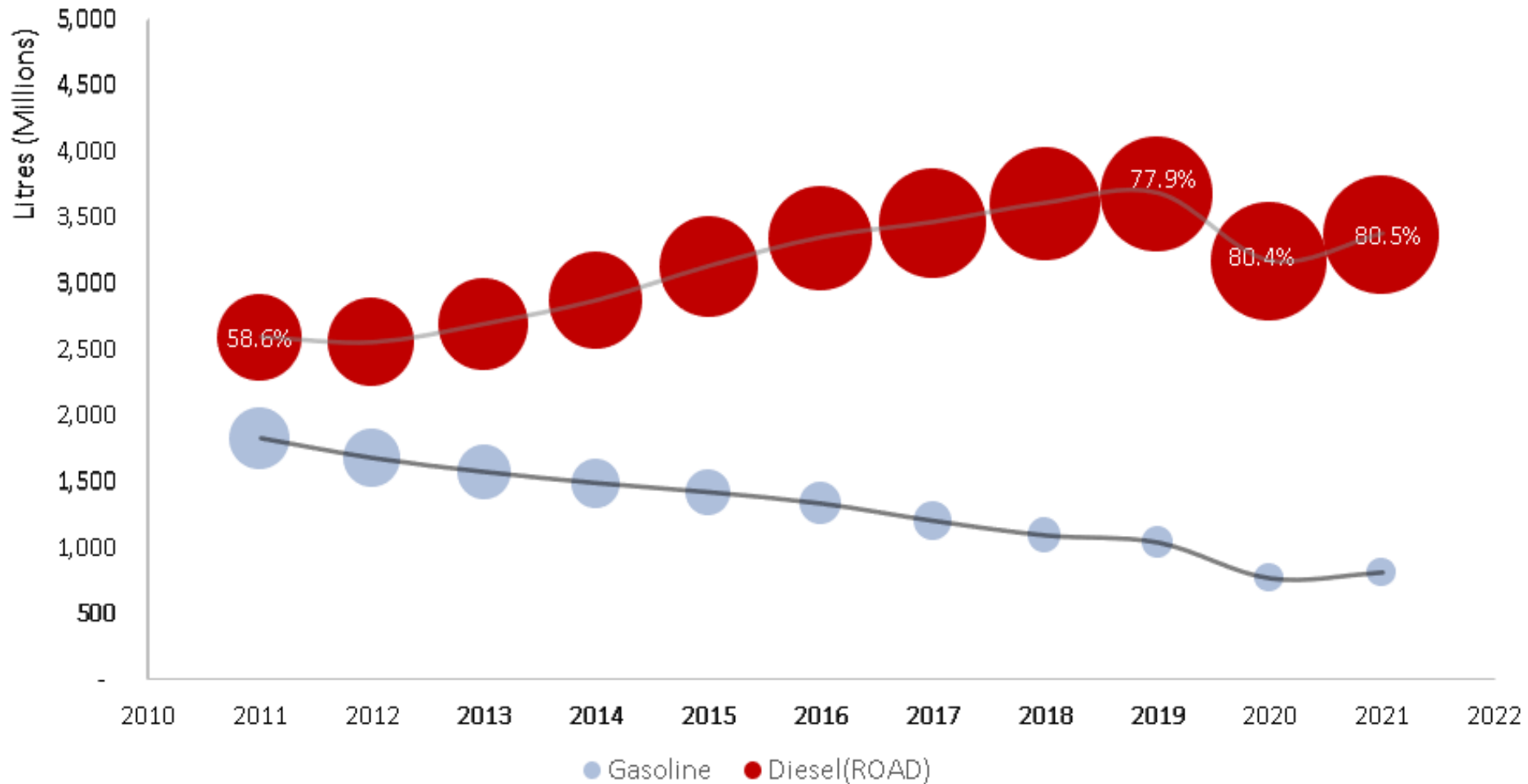
(Ref: 457-22P0287)

TODAY'S AGENDA

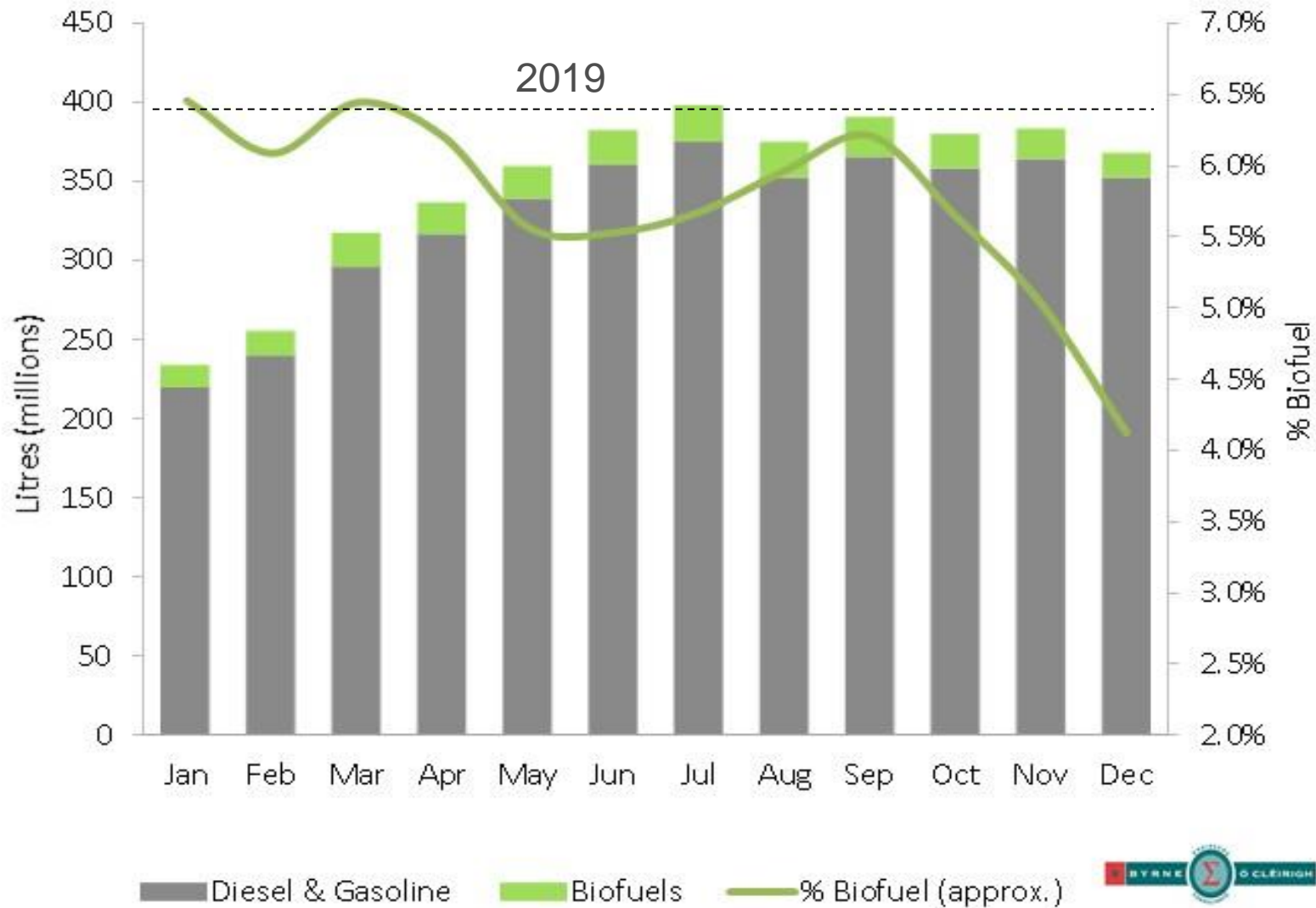
- Performance in 2021
- DoT policy update
- BOS Administration
 - Move to energy
 - Cert types and limits & targets
 - Annex IX Part B
- Discussion



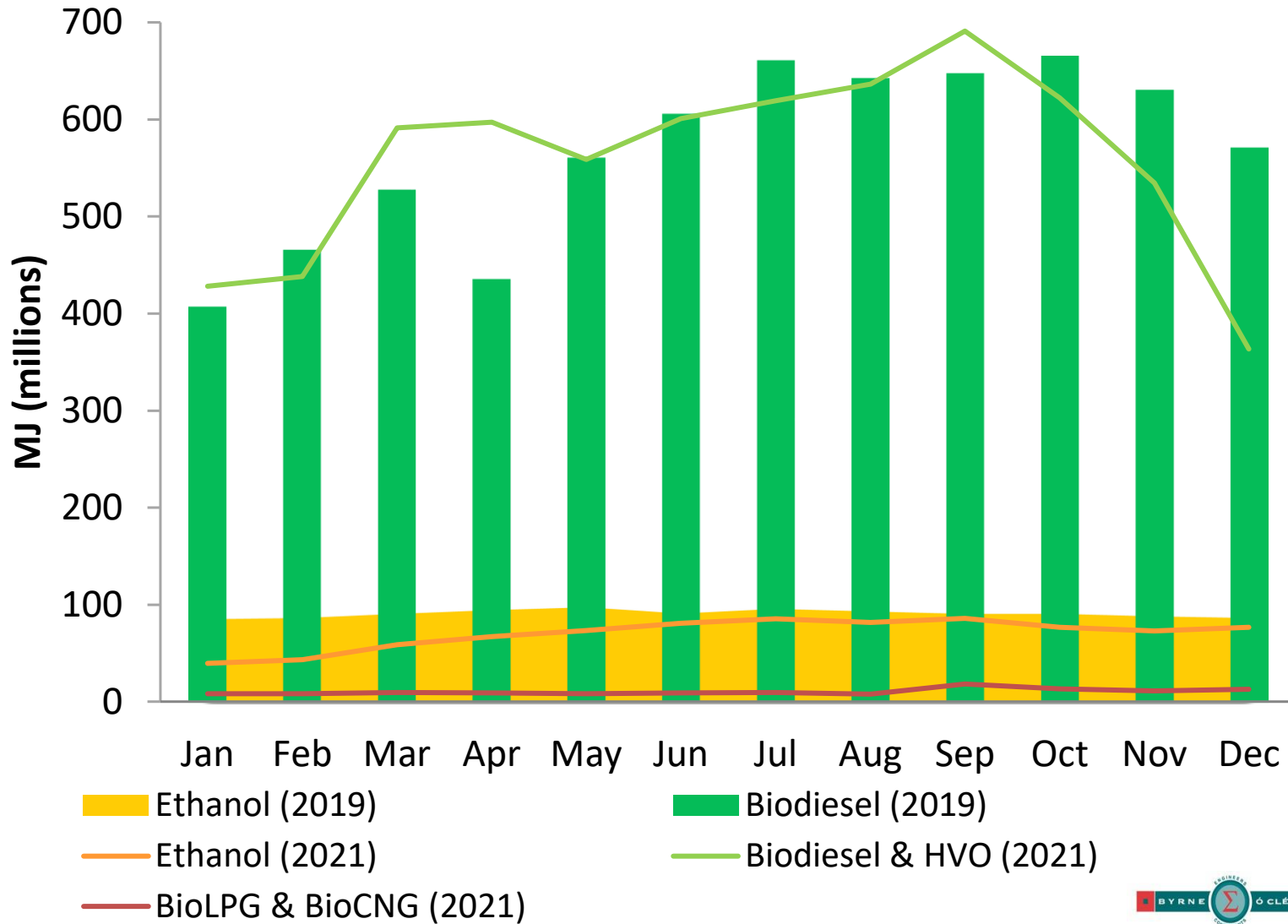
2021 – FOSSIL FUEL



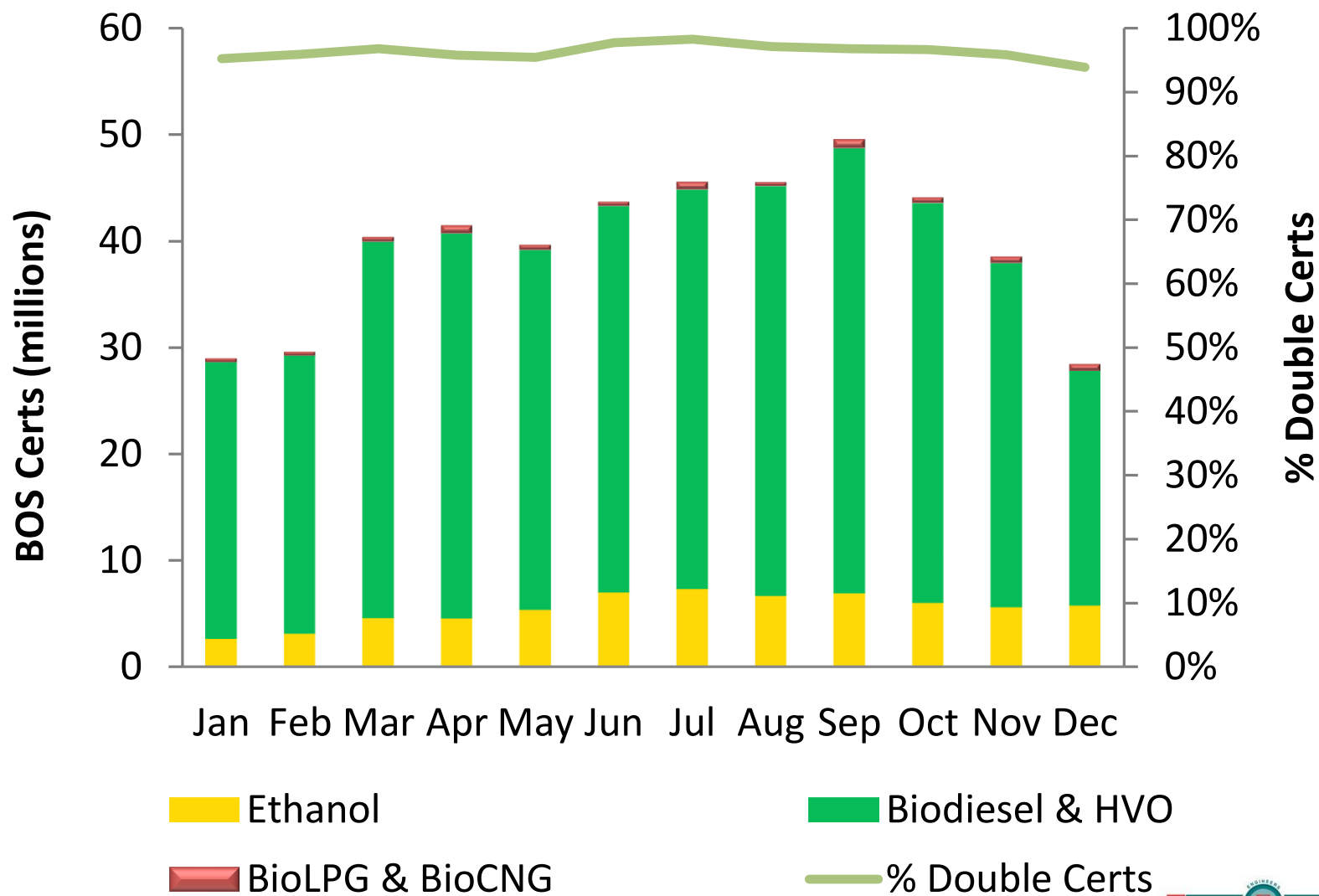
2021 PERIOD – FOSSIL & BIO



2021 PERIOD – BIOFUEL



CERTS AWARDED – 2021



2021 PERIOD

- The numbers:

- 3.9 billion litres fossil (- 11%)

- 247 million litres bio (- 5%)

- 4.2 billion litres in total (- 11%)

vs 2019

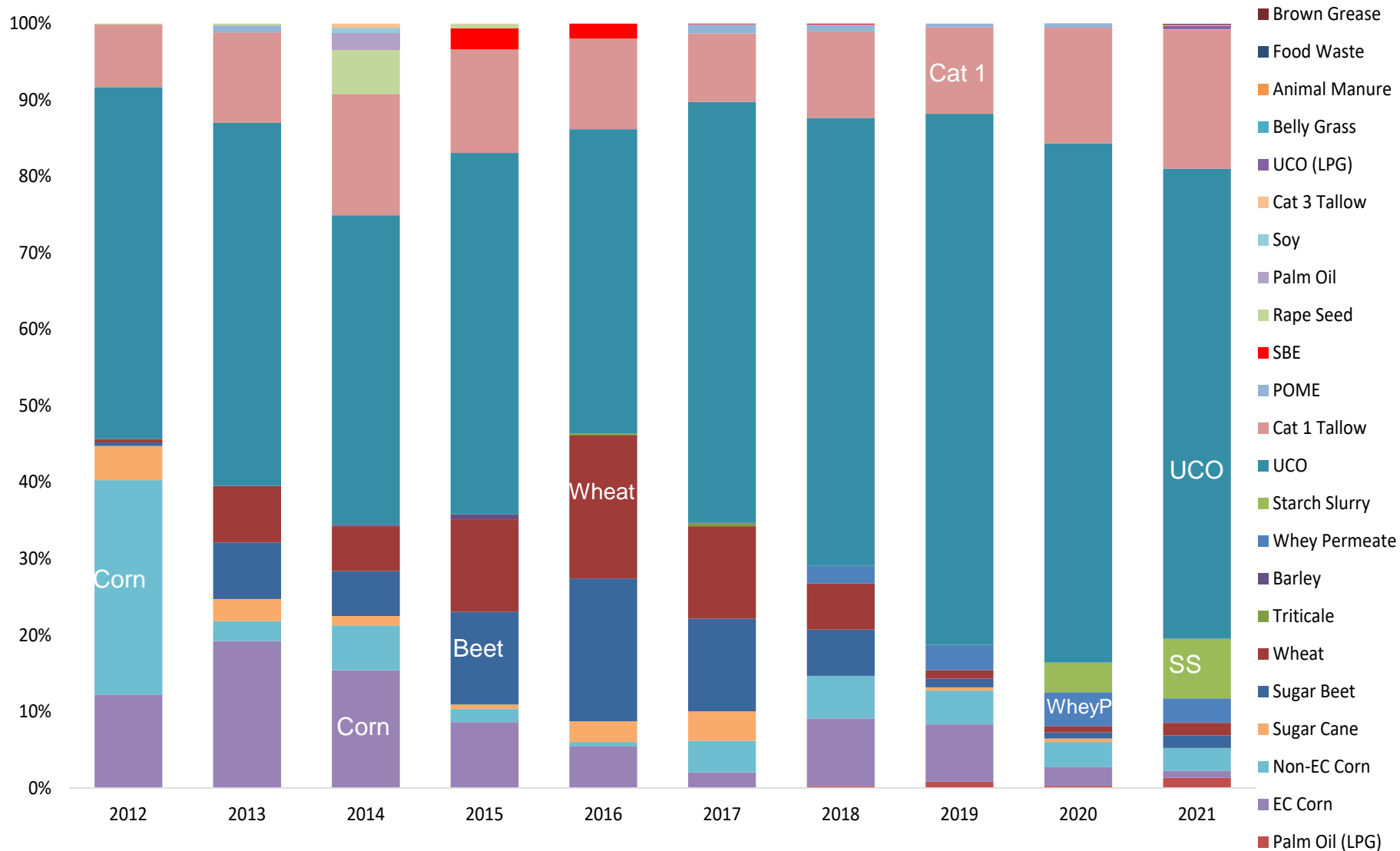
- Obligation 12.359% vs c.12.05% achieved (ex '19 & '20 Certs)

- Including '19 & '20 Certs, achieved 13.4%

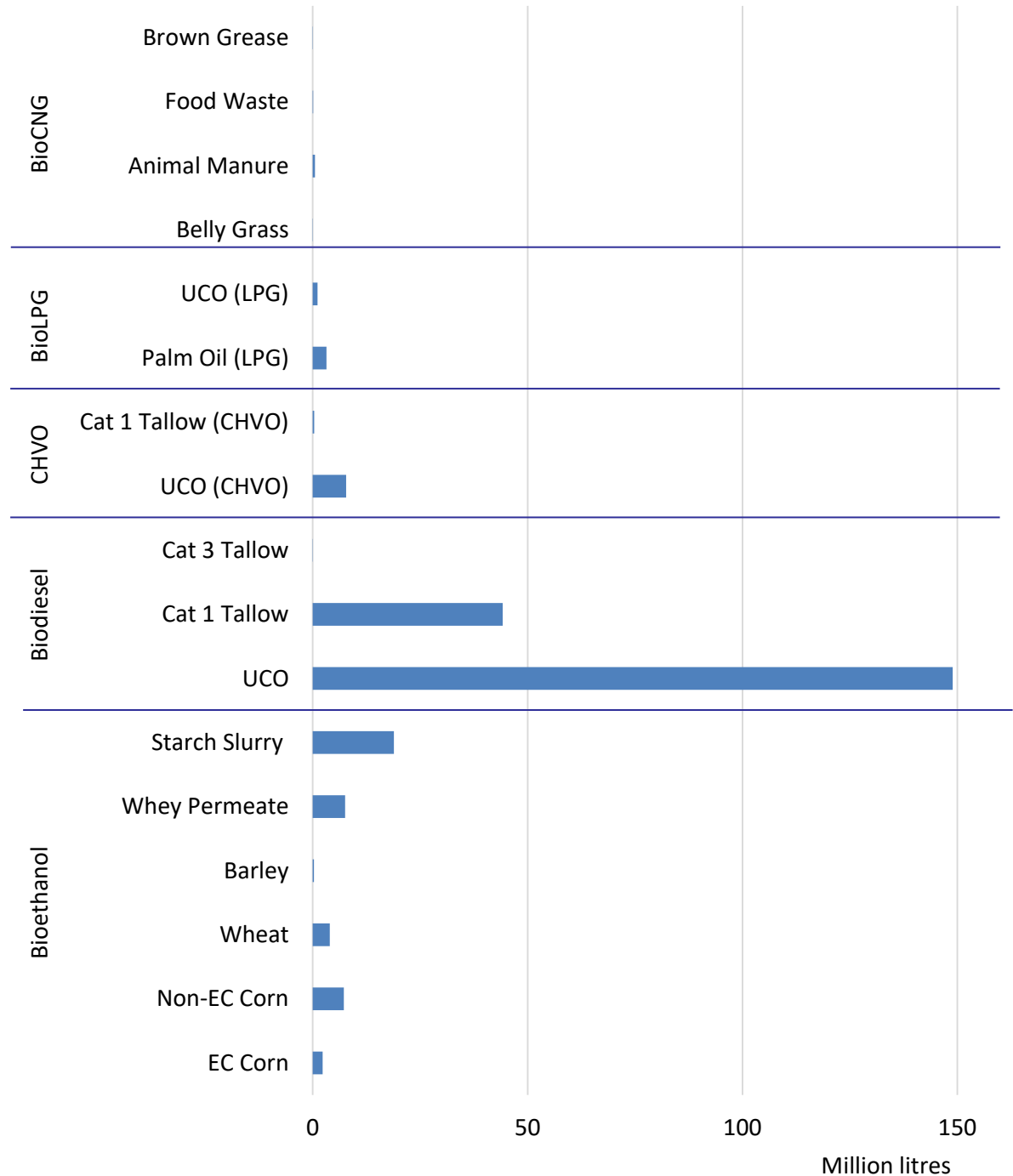
- Reconciliation notification deadline: 20th April. Otherwise, as per interim statement.



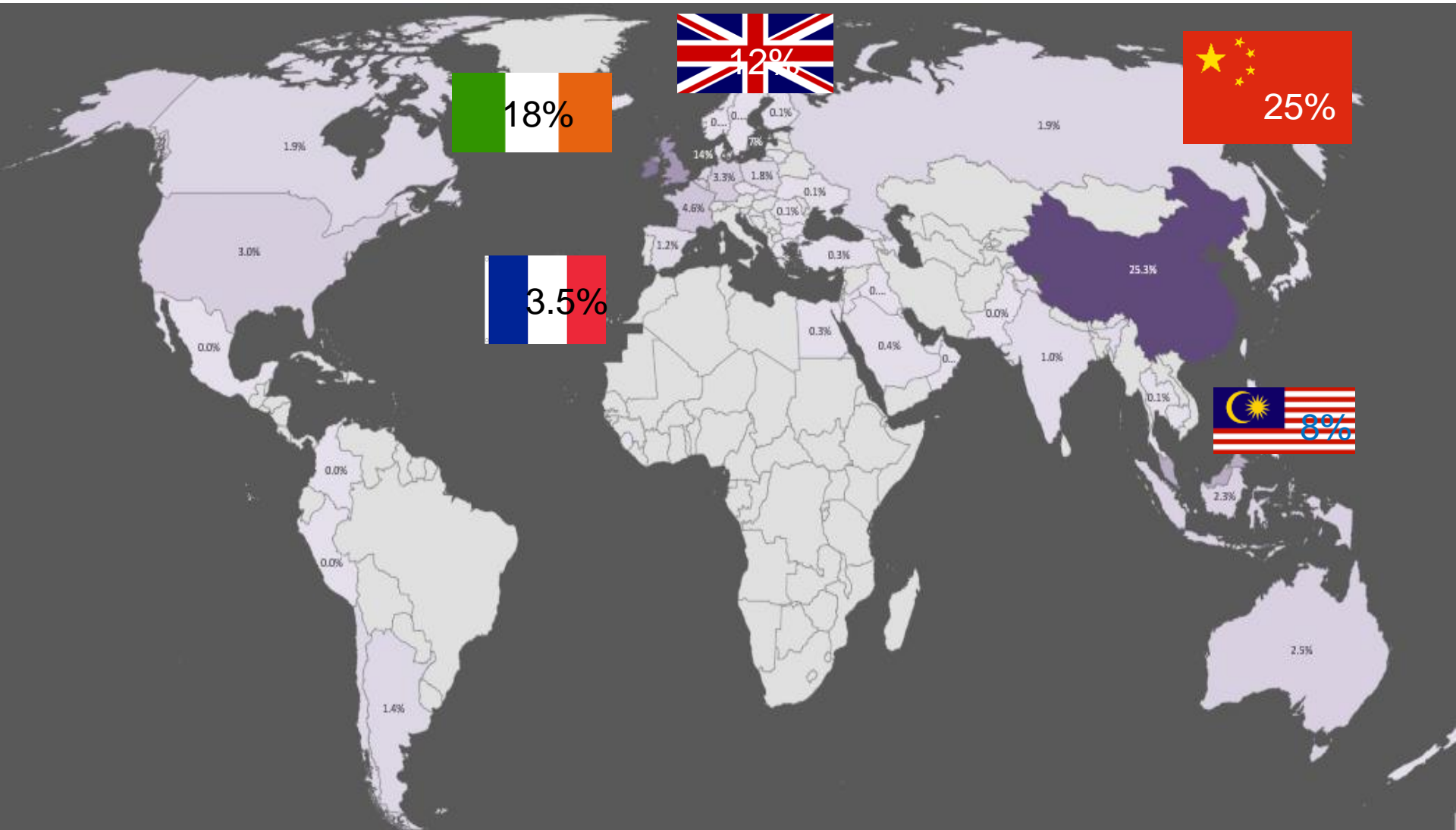
FEEDSTOCKS



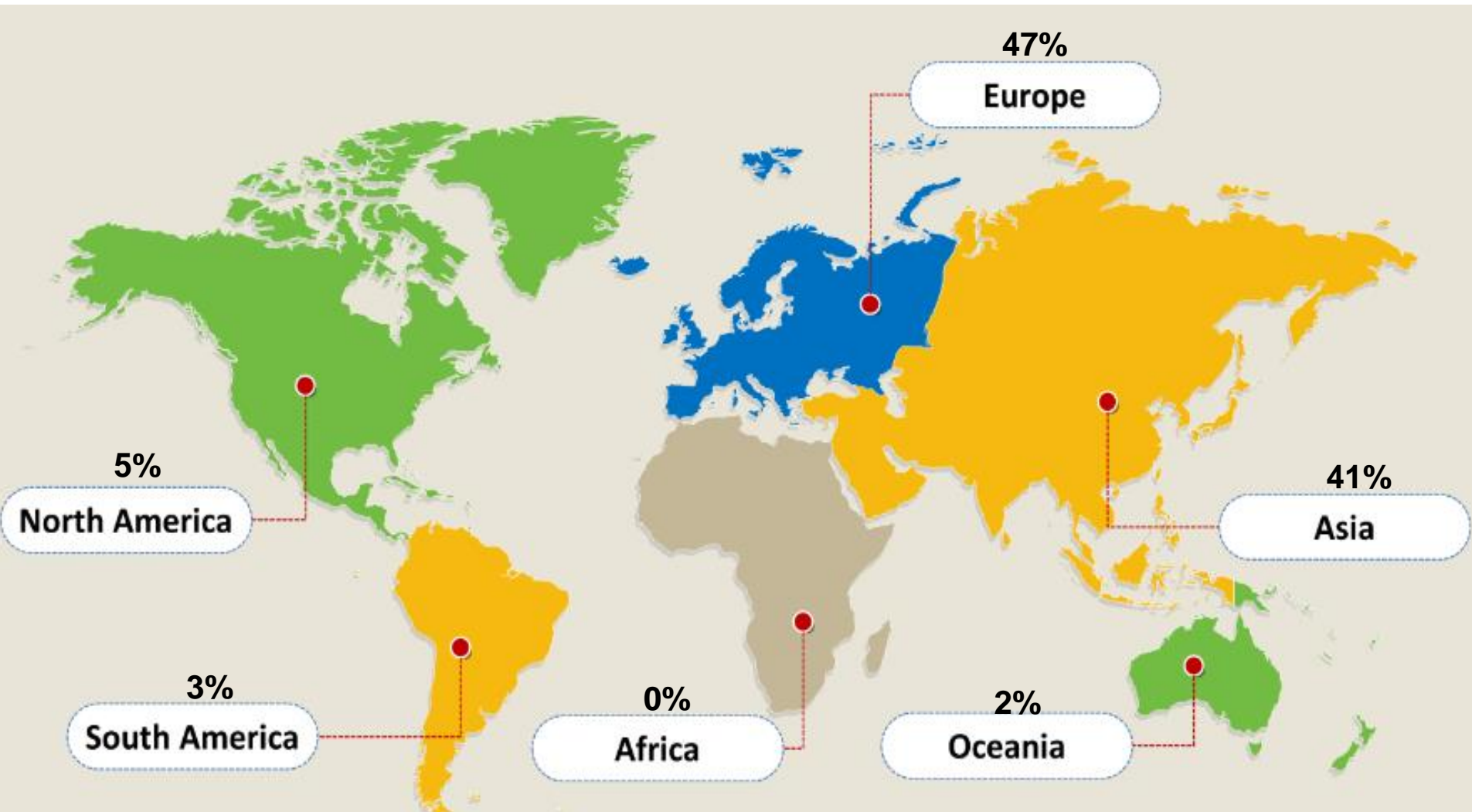
FEEDSTOCKS



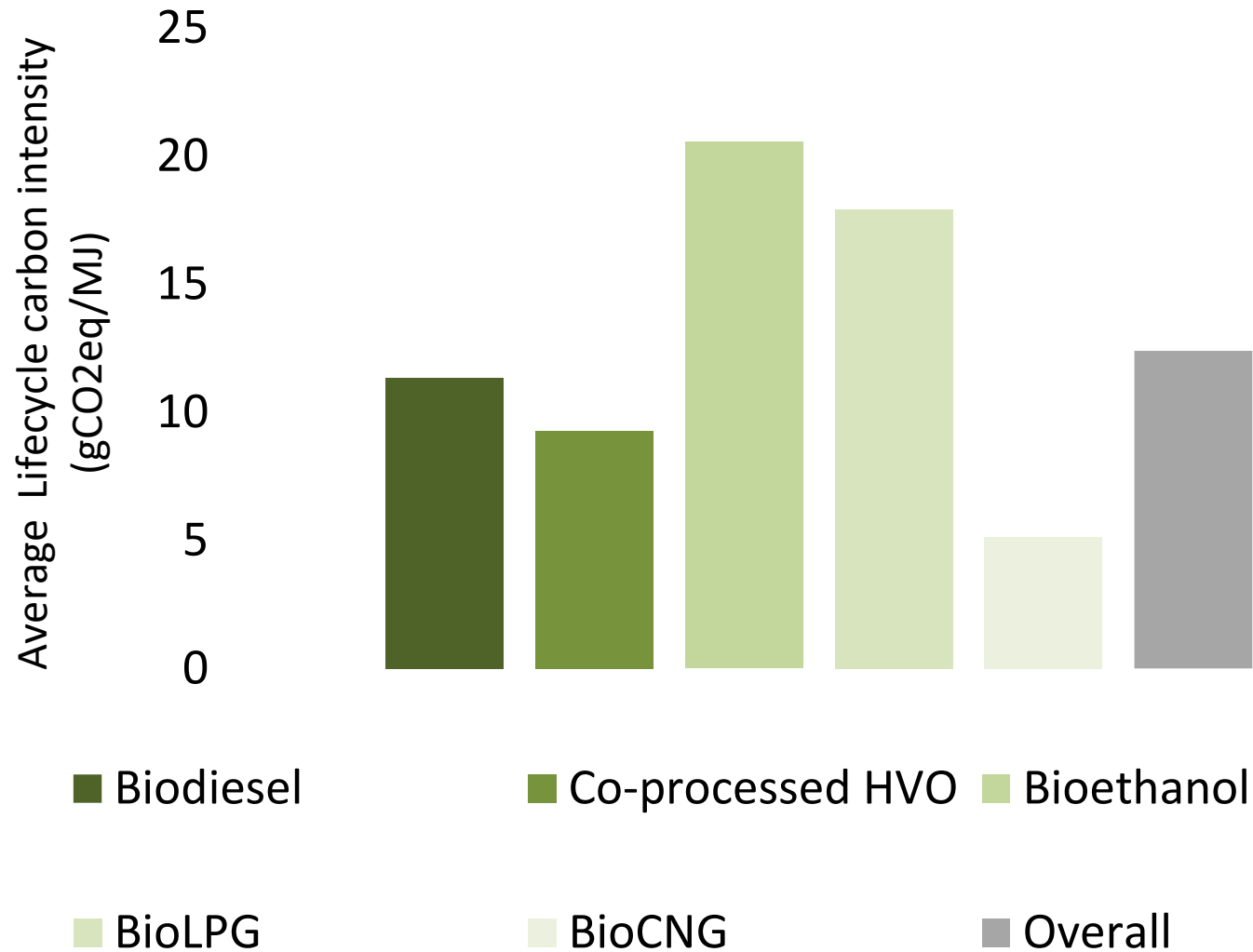
FEEDSTOCKS



FEEDSTOCKS



CARBON INTENSITY



SI 160 COMPLIANCE

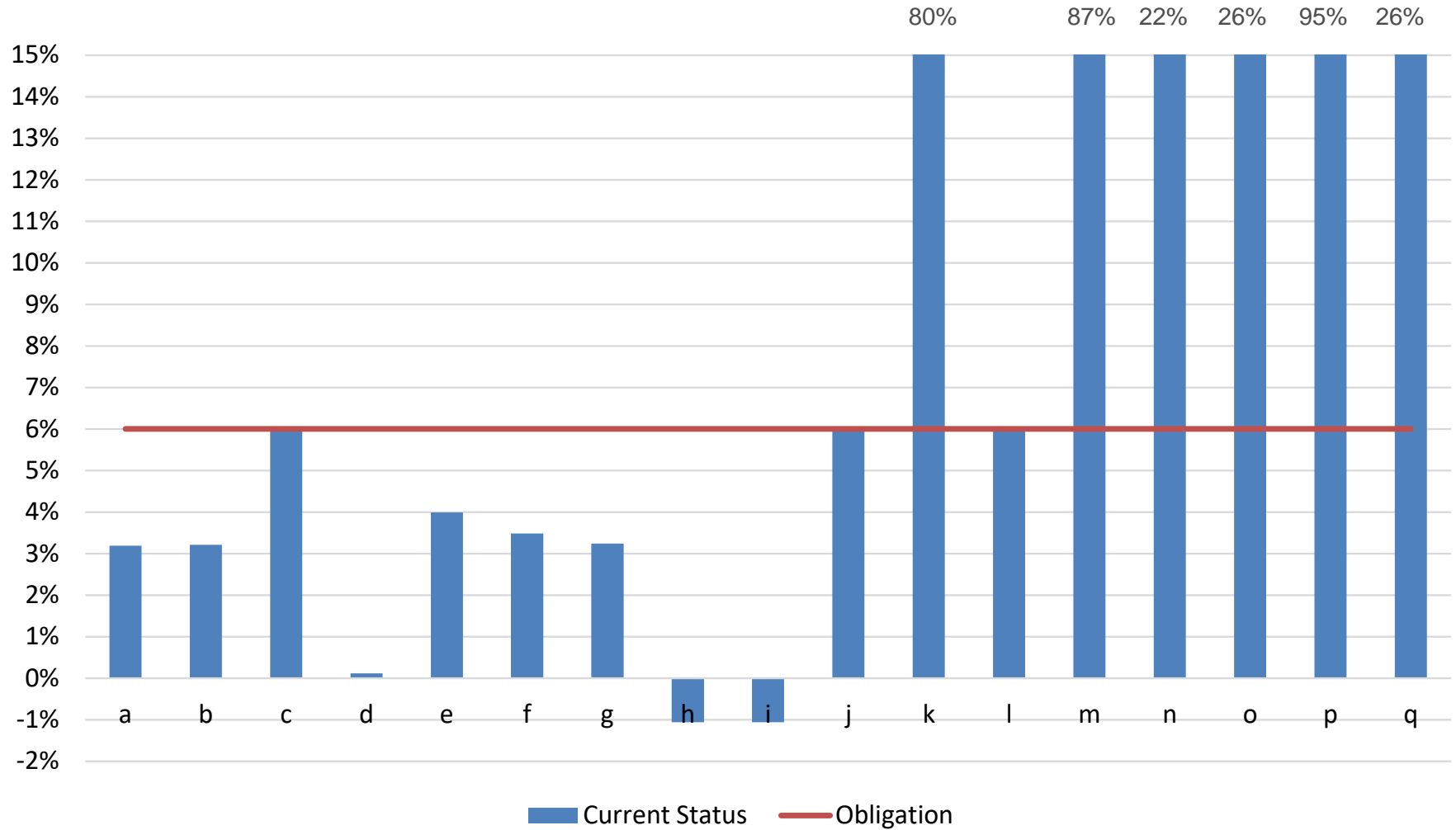
- Requires designated fuel suppliers to reduce the carbon intensity of fuels by 6%, relative to FBS (94.1 gCO_{2eq}/MJ)
- For 2021, 3.1% saving achieved, in aggregate

Fossil Fuel	Savings (ktCO _{2eq})
Gasoline	20
Diesel	(114)
LPG	<1
Gasoil	(25)
Rail Diesel	(1)
CNG	2
Total	(120)

Biofuel	Savings (ktCO _{2eq})
Bioethanol	62
Biodiesel & HVO	552
BioLPG	8
Biogasoil	0
Biodiesel (rail)	0
BioCNG	1
Total	598

- Shortfall of 482 ktCO_{2eq}

SI 160 COMPLIANCE – FUEL SUPPLIERS

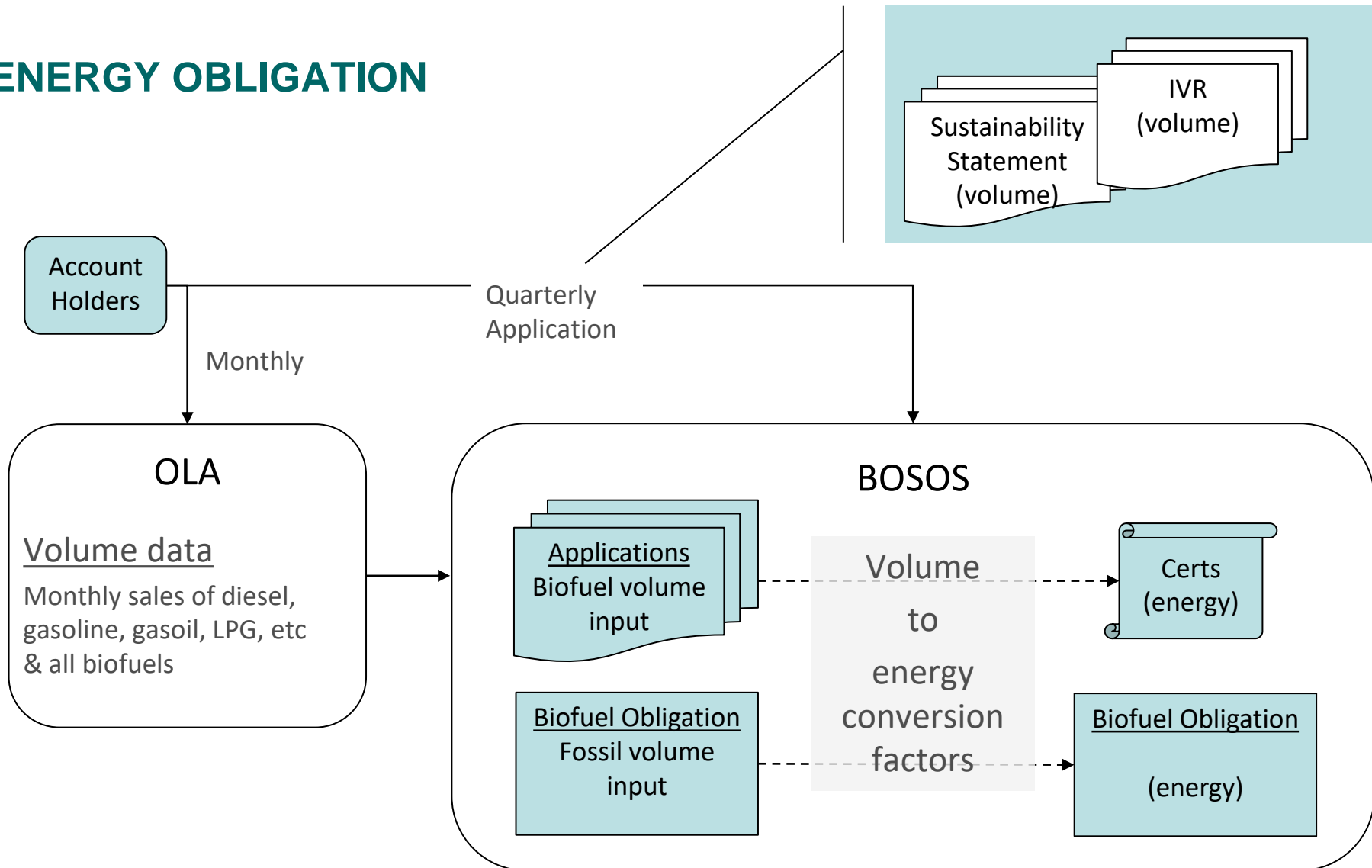


BOS 2023 – ADMINISTRATION

- Move to energy
- Green / Red / Orange Certs
- Part B limit



ENERGY OBLIGATION



OLD VS NEW

	Biodiesel	HVO	Bioethanol	Biometh'ol	BioLPG	BioCNG	Total	
Volume	100	100	100	100	100	100	600	litre/Nm ³
Single Certs	100	100	100	100	100	150	650	Certs
Double Certs	200	200	200	200	200	300	1,300	Certs
Volume to Energy	33	34	21	16	24	35.8		MJ per litre/Nm ³

	Biodiesel	HVO	Bioethanol	Biometh'ol	BioLPG	BioCNG	Total	
Energy	3,300	3,400	2,100	1,600	2,400	3,580	16,380	MJ
Single Certs	3,300		2,100	1,600	2,400		19,870	Certs
Development (x1.5)		5,100				5,370		Certs
Double Certs	6,600	10,200	4,200	3,200	4,800	10,740	39,740	Certs

OLD VS NEW

	Biodiesel	HVO	Bioethanol	Biometh'ol	BioLPG	BioCNG	Total	
Volume	100	100	100	100	100	100 Nm ³ (150)	650	litres
Vol/Certs %	15%	15%	15%	15%	15%	23%	650 - 1,300	Certs

	Biodiesel	HVO	Bioethanol	Biometh'ol	BioLPG	BioCNG	Total	
Energy	20%	21%	13%	10%	15%	22%	16,380	MJ
Certs	17%	26%	11%	8%	12%	27%	19,870 - 39,740	Certs

RENEWABLE FUEL CERT TYPES

- Implementation will be required
 - **Crop cap**
 - max. 2% of total transport energy
 - high ILUC-risk (2019 value)
 - **Advanced biofuel target**
 - at least 0.2% in '22, 1% in '25, 3.5% in '30
 - **Part B Limit?**



CROP CAP (2%)



- Applies to *cereal and other starch-rich crops, sugars and oil crops and from crops grown as main crops primarily for energy purposes on agricultural land*
- Majority are ethanol feedstocks: corn, wheat, barley, sugar beet, sugar cane
- Biodiesel: rape, soy



CROP CAP, HIGH ILUC-RISK



- Applies to *Palm Oil*
- Set limit at that quantity placed on the market in 2019 (49 TJ ~ 2M litres) and reduce to zero over time
- Policy statement also only allows the company that placed it on the market in 2019 to do so in the future



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ADVANCED TARGET



Part A. Feedstocks for the production of biogas for transport and advanced biofuels, the contribution of which towards the minimum shares referred to in the first and fourth subparagraphs of Article 25(1) may be considered to be twice their energy content:

- (a) Algae if cultivated on land in ponds or photobioreactors;
- (b) Biomass fraction of mixed municipal waste, but not separated household waste subject to recycling targets under point (a) of Article 11(2) of Directive 2008/98/EC;
- (c) Biowaste as defined in point (4) of Article 3 of Directive 2008/98/EC from private households subject to separate collection as defined in point (11) of Article 3 of that Directive;
- (d) Biomass fraction of industrial waste not fit for use in the food or feed chain, including material from retail and wholesale and the agro-food and fish and aquaculture industry, and excluding feedstocks listed in part B of this Annex;
- (e) Straw;
- (f) Animal manure and sewage sludge;
- (g) Palm oil mill effluent and empty palm fruit bunches;
- (h) Tall oil pitch;
- (i) Crude glycerine;
- (j) Bagasse;
- (k) Grape marcs and wine lees;
- (l) Nut shells;
- (m) Husks;
- (n) Cobs cleaned of kernels of corn;
- (o) Biomass fraction of wastes and residues from forestry and forest-based industries, namely, bark, branches, pre-commercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil;
- (p) Other non-food cellulosic material;
- (q) Other ligno-cellulosic material except saw logs and veneer logs.

Part B. Feedstocks for the production of biofuels and biogas for transport, the contribution of which towards the minimum share established in the first subparagraph of Article 25(1) shall be limited and may be considered to be twice their energy content:

- (a) Used cooking oil;
- (b) Animal fats classified as categories 1 and 2 in accordance with Regulation (EC) No 1069/2009.

ADVANCED TARGET



- At least 0.2% in '22, 1% in '25, 3.5% in '30
- Current assessment (in the absence of RED II transposed):
 - POME
 - SBE
 - Sewage sludge
 - Food waste not fit for use in the food or feed chain
 - Animal manure
 - Brown grease
 - Belly grass



ADVANCED TARGET



- Orange Certs:
 - Waste starch slurry
 - Whey permeate
- Fit for use in the food or feed chain?
- Legislative change to introduce Annex IX requirements
- Modified determination process?

RENEWABLE FUEL CERT TYPES

Overall Obligation - all sustainable biofuel (and sustainable RFNBOs / RCFs? / Elec?)

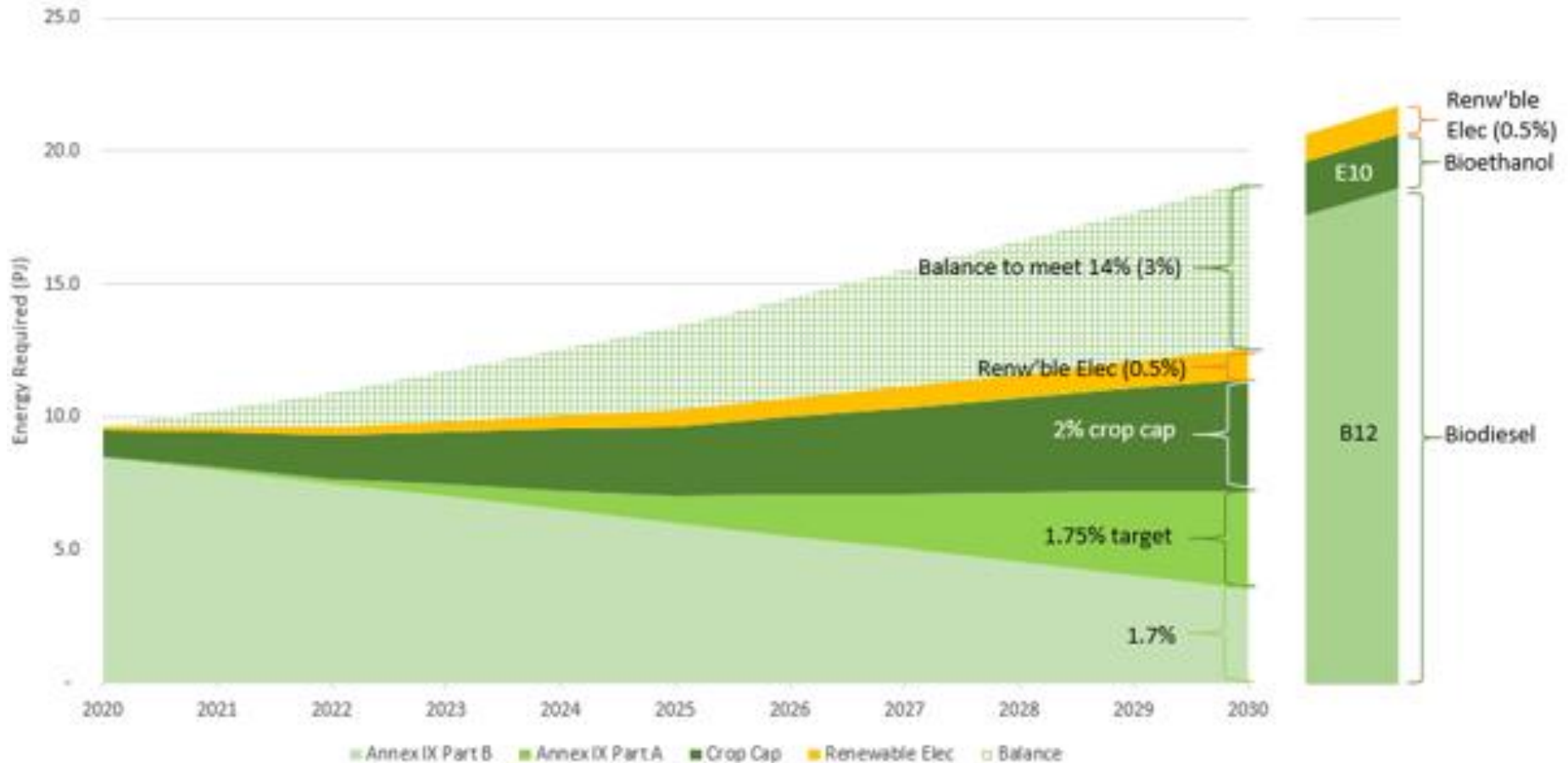
Sub-target (0.2% '22, 1% '25, 3.5% '30)	Crop cap (2%)		Part B limit (3.4%)	Other Biofuels	RFNBO / RCF / Elec
		High ILUC-risk (49 TJ ~ 2M litres)			
If listed in Annex IX Part A	If not listed in Annex IX and not orange qualified (a cereal, other starch-rich crops, a sugar crop or an oil crop)	Limited to 2019 quantity	If listed in Annex IX Part B	If not listed in Annex IX and not a cereal, other starch-rich crop, a sugar crop or an oil crop, except where grown on degraded land	Renewable fuels of non-biological origin (e.g. H2 produced from renewable elec) Recycled carbon fuels (e.g. waste plastic) Renewable electricity used directly in transport
e.g. POME SBE	e.g. Barley Corn	Palm	UCO Cat 1 & 2 tallow	e.g. Cat 3 tallow	
Multiple	Single	Single	Multiple	Single	Elec multiple

Green Certs

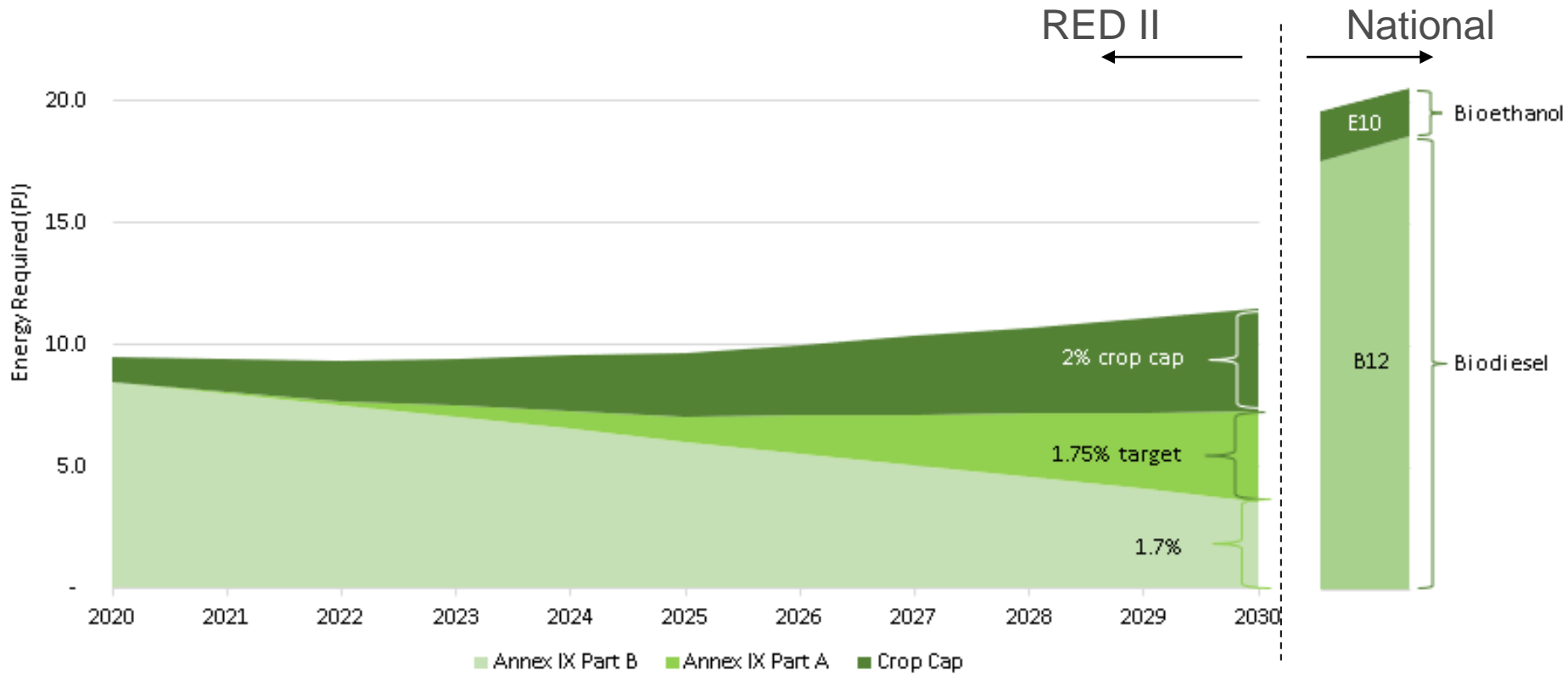
Red Certs

Orange Certs

ANNEX IX PART B



ANNEX IX PART B



NEXT UP



-- Thank you for your attention --