



RTFO Briefing Session

25th October 2023

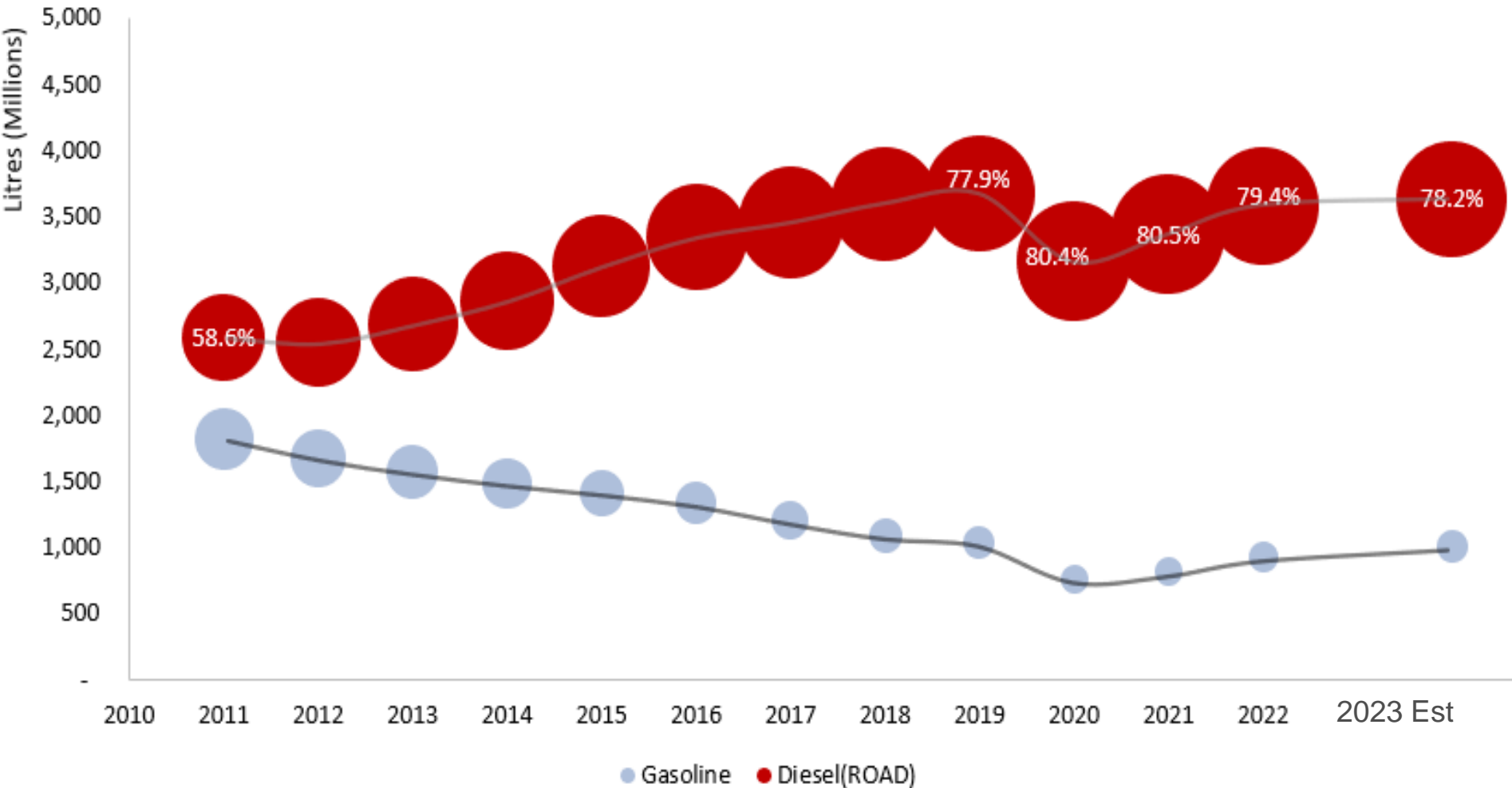
(Ref: 457-23P1152)

TODAY'S AGENDA

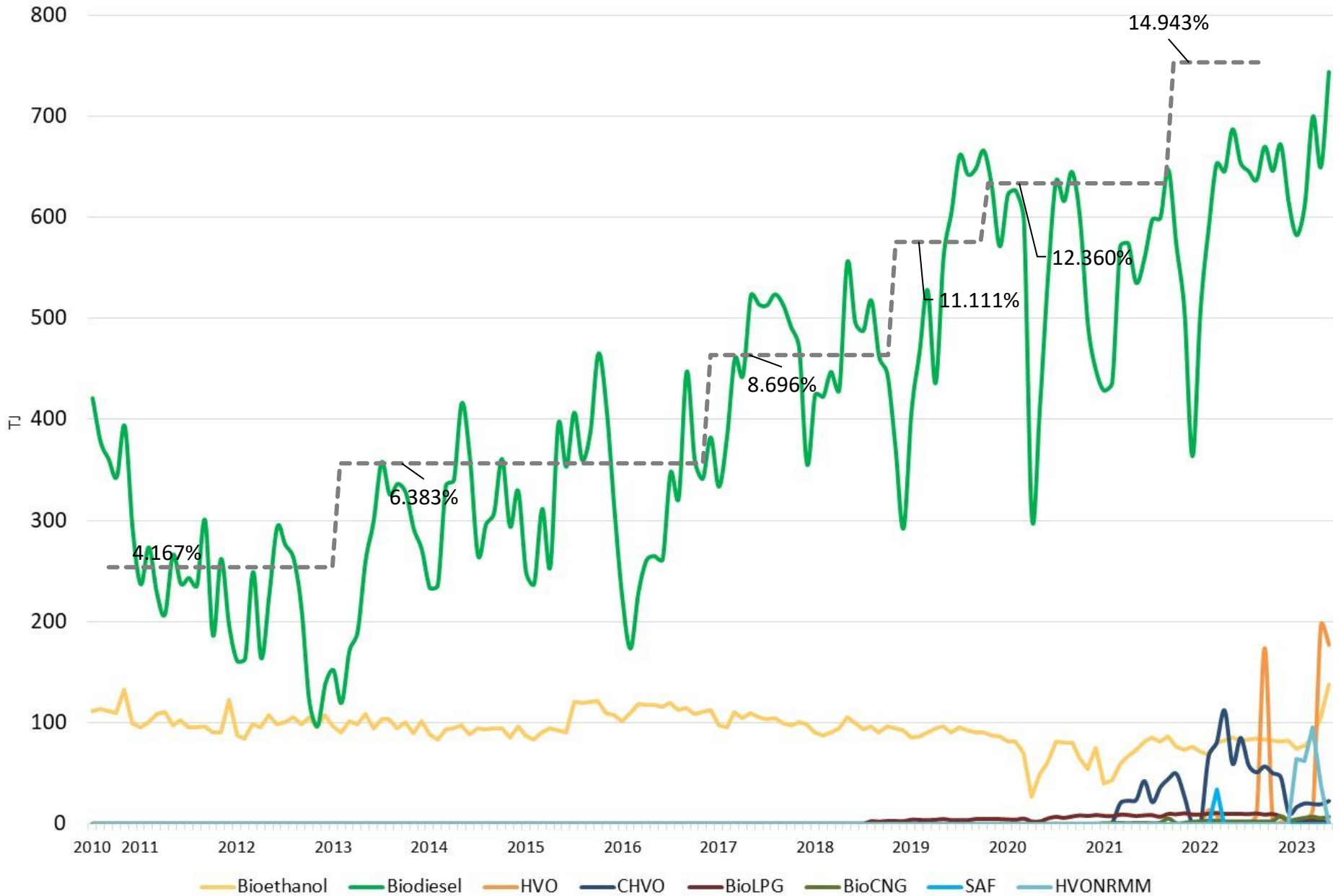
- Performance review (2023 period)
- Annex IX Part A & multiple counting
- Carbon calculator
- Revised application procedure & guidance
- Mass balancing (80:20)
- DoT policy update
- EU database
- Implementing Regulations and amendments to Annex IX
- Auditing



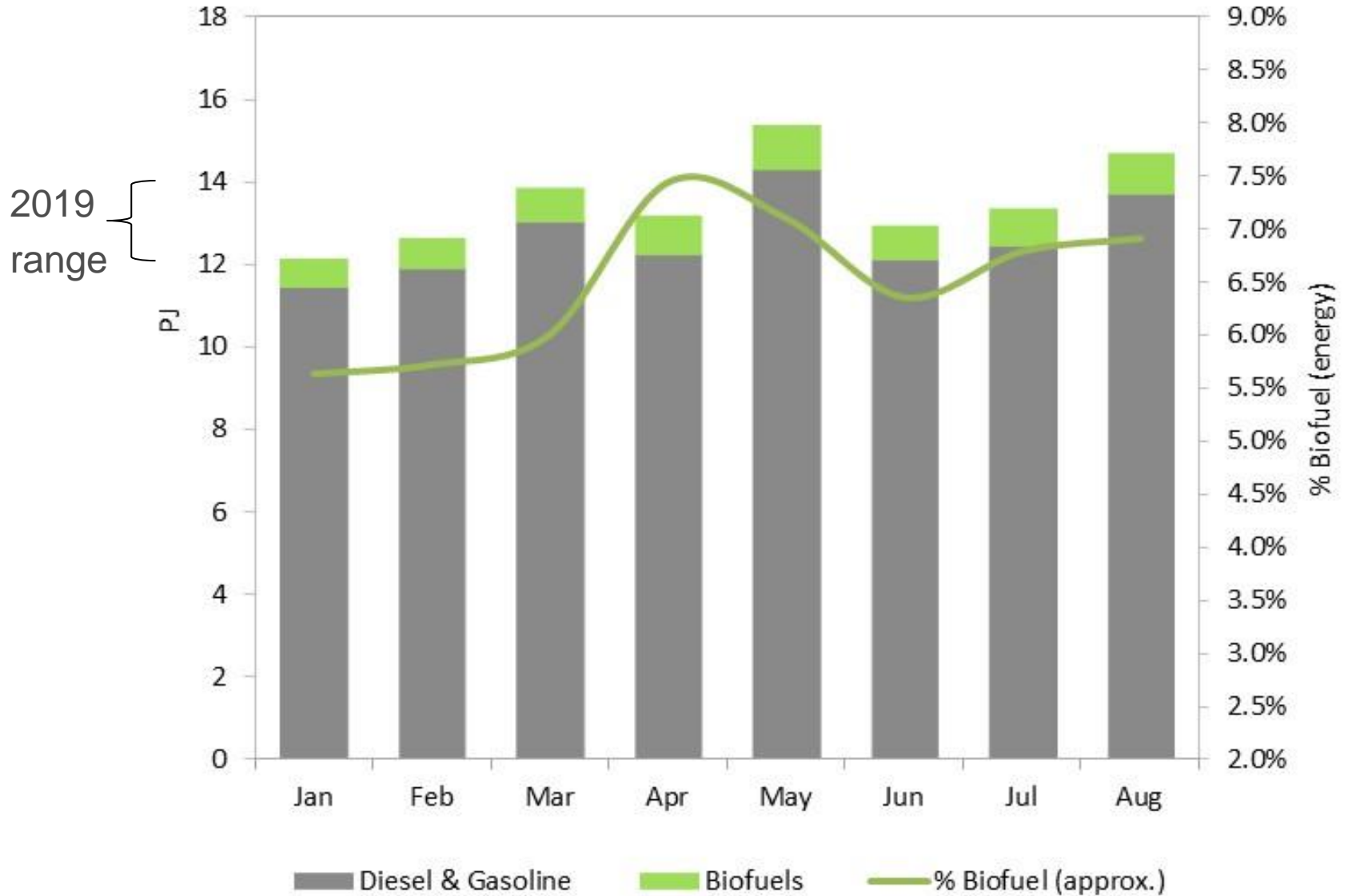
ROAD TRANSPORT VOLUME



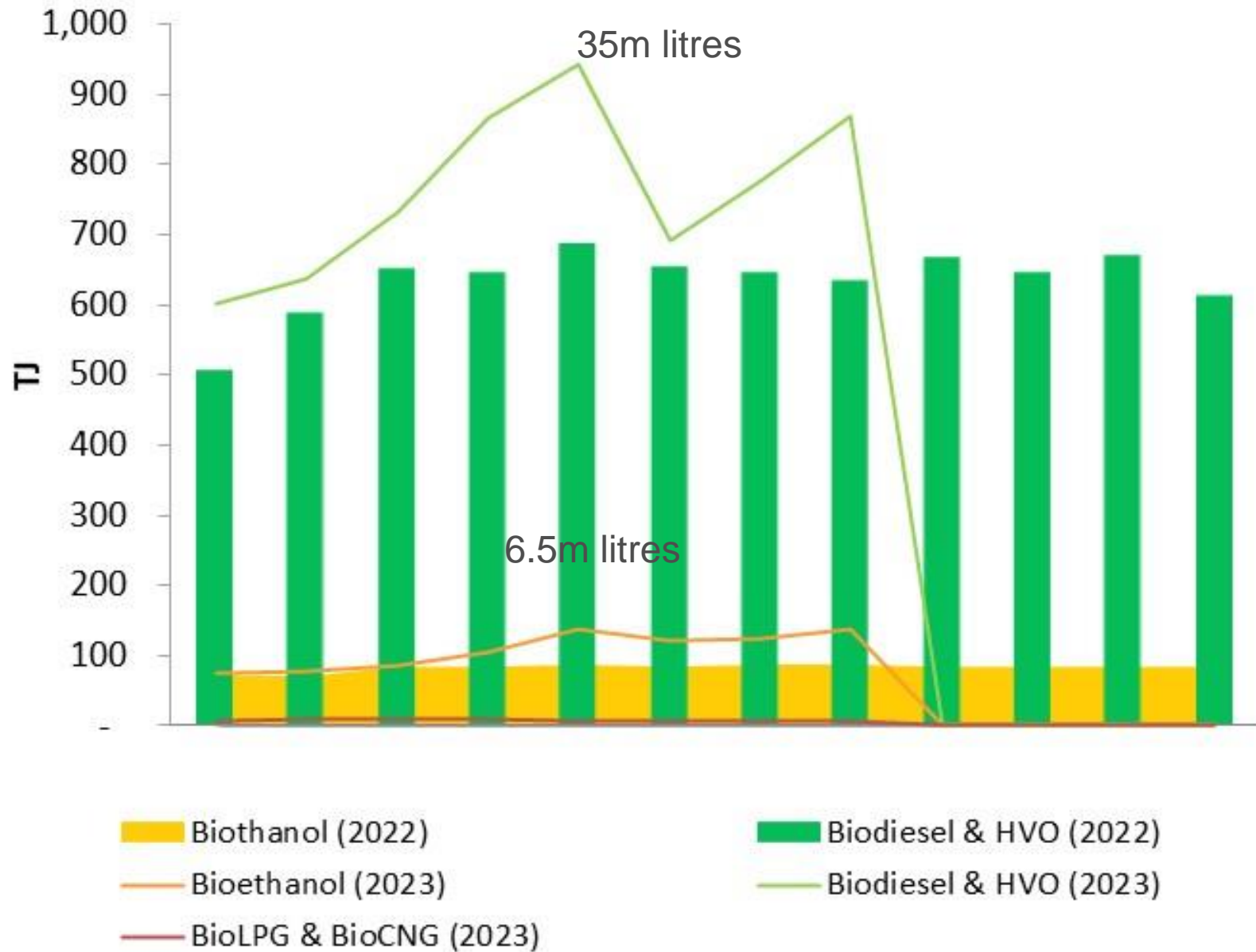
INCREASING BIOFUEL



2023 PERIOD – FOSSIL & BIO



2023 PERIOD – BIOFUEL

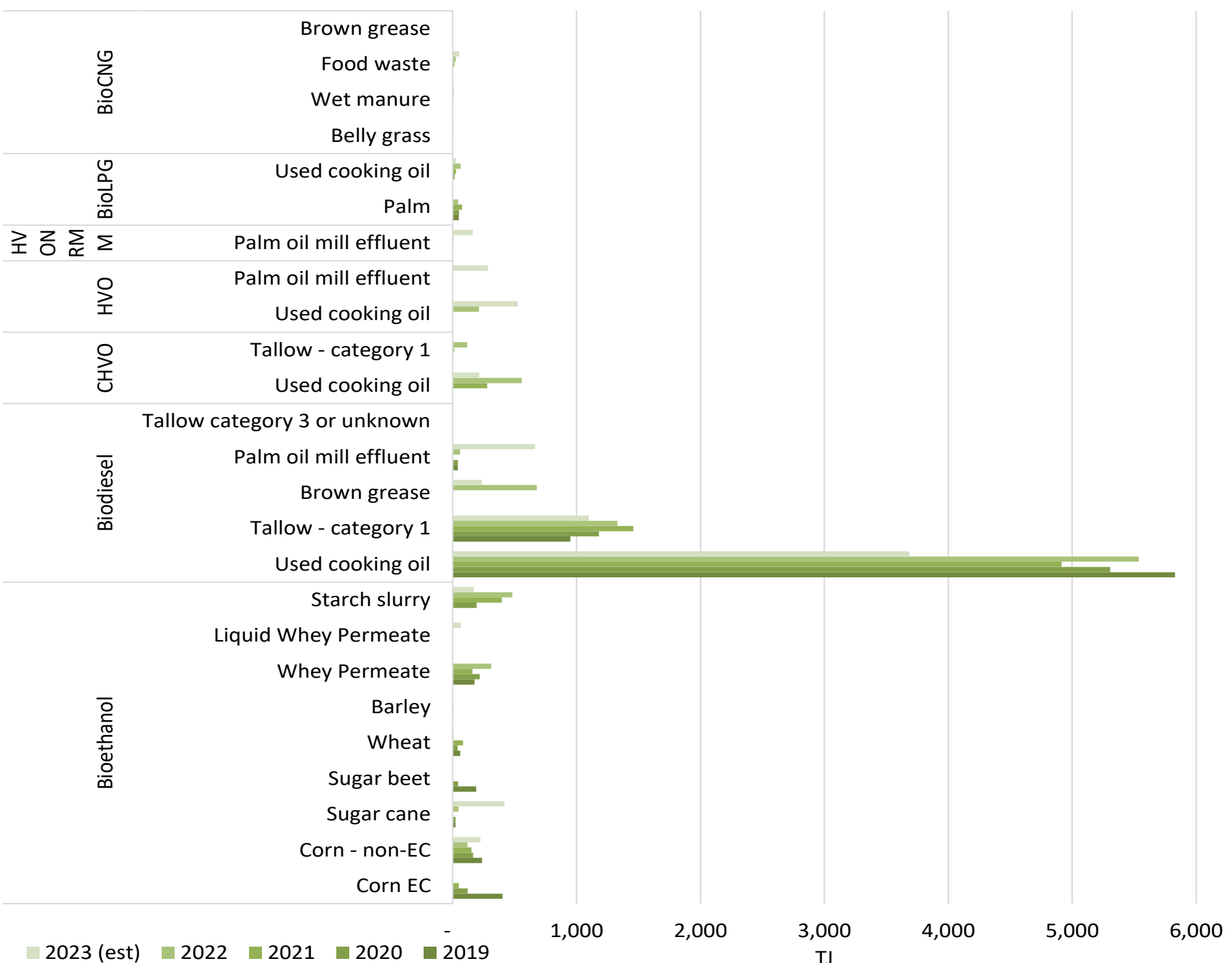


2023 PERIOD

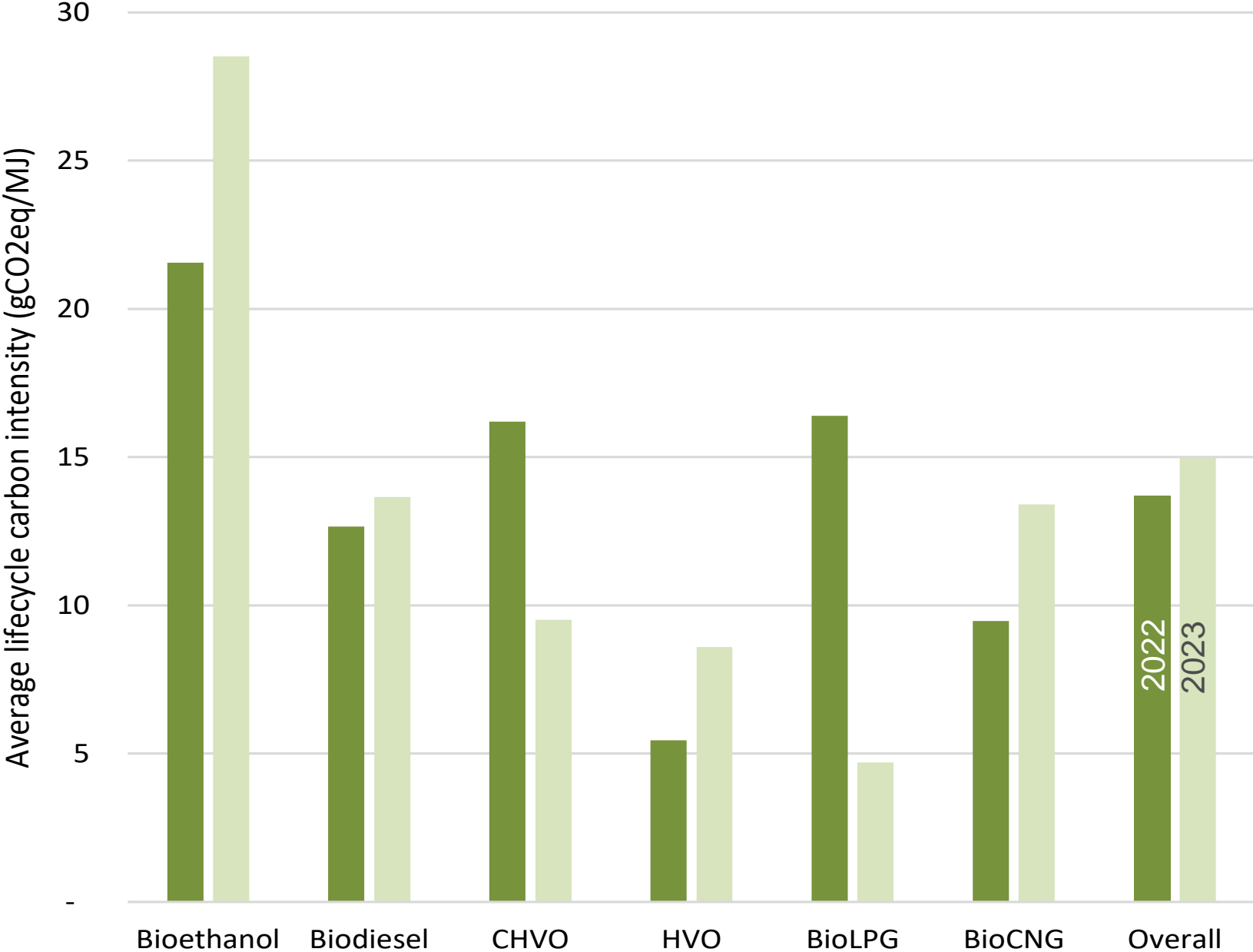
- Provisional numbers

Fuel	Million Litres	TJ
RTFO fossil	2,871	100,832
Additional SI 160 (rail & NRMM)	522	18,777
Biodiesel	163	5,367
Bioethanol	41	864
CHVO/HVO	37	1,274
BioLPG	<1	14
BioCNG	1 (Nm ³)	53

- Obligation 16.985%, estimated at 26 billion Certs
- Approx 1.3 billion RTFO Cert carried forward to 2023



CARBON INTENSITY (2022 VS 2023)



SI 160 COMPLIANCE

- Reduce the carbon intensity of fuels by 6%, relative to FBS (94.1 gCO_{2eq}/MJ)
- For 2023 thus far, around 4% CI saving, in aggregate

Fossil Fuel	Carbon Savings (ktCO _{2eq})
Gasoline	16
Diesel	(81)
LPG	1
Gasoil	(18)
Rail Diesel	(1)
CNG	<1
Total	(83)

Biofuel	Est'd Carbon Savings (ktCO _{2eq})
Bioethanol	57
Biodiesel	528 (426, 73*, 28)
BioLPG	8
Electricity	0
UERs	0
BioCNG	3
Total	596

DOUBLE COUNTING

- All renewable fuels produced from Annex IX (Part A and Part B) double counted
 - Part A, x2 **Green Certs** per MJ
 - Part B, x2 **Orange Certs** per MJ
- All other renewable fuels produced from other feedstocks that meet the sustainability criteria, single counted – could be **Red Certs** (crop-based feedstock) or **Orange Certs** (not crop-based & not on Annex IX)

Table 1: Additional Certificates (SI 143 of 2023)

Fuel Type	End use	Feedstock	No. of Additional Certificates per MJ	Total no. of Certificates per MJ
BioCNG	Road, rail & NRMM	Any Annex IX	1.4	3.4
		Not Annex IX	0.7	1.7
HVO & CHVO	Road, rail & NRMM	Any Annex IX	0.5	2.5
		Not Annex IX	0.25	1.25
Biodiesel (FAME)	Road, rail & NRMM	Category 1 tallow	0.5	2.5
Any	Aviation	Any Annex IX	0.4	2.4
		Not Annex IX	0.2	1.2
Any	Marine	Annex IX	0.4	2.4
		Not Annex IX	0.2	1.2
RFNBO	Road, rail & NRMM	Any	3	4

ADDITIONAL COUNTING

Procedure,
Section 2.9.6

ANNEX IX PART A



- Algae... Straw... Husks...
- Biomass fraction of industrial waste... Other non-food cellulosic material...
- Spent Bleaching Earth, Food Waste (not fit for use in food or feed chain), Belly Grass, Liquid Whey Permeate (with caveats), Waste Starch Slurry (with caveats), Brown Grease
- Determination required for feedstocks not explicitly listed or already determined

ANNEX IX PART A



- Procedure (Section 2.12)

2.12.1 The specific description from Annex IX Part A which, in the opinion of the account holder, the feedstock meets;

2.12.2 A justification of the claim, that is to say, a setting out of the rationale/logic/argument/supporting documentation or opinion which convincingly demonstrates that the feedstock meets the description.

- Guidance (Section 3.19)

- A justification for the claim by setting out the rationale/logic/argument/supporting documentation or opinion, so as to convincingly demonstrate that the feedstock meets the description. There is no prescribed format for this justification, but it should be a detailed submission containing robust proof that the feedstock meets all aspects of the description. For example, Annex IX (d) refers to '*biomass fraction of industrial waste not fit for use in the food or feed chain...*' Thus, the feedstock should be clearly demonstrated to be:

- i. Biomass;
- ii. Industrial waste;
- iii. Not fit for use in the food chain;
- iv. Not fit for use in the feed chain.

ANNEX IX PART A



- Examples
 - Waste starch slurry – submission from two suppliers with detailed information
 - Liquid Whey Permeate – Independent expert assessment provided, detailed submission
 - RTFO Team technical assessment:
 - Examines, and queries, the submissions
 - RTFO research (may seek expert opinion, e.g. Teagasc)
 - Examine status in other Member States
 - Consult with DECC, EPA, SEAI, DoT

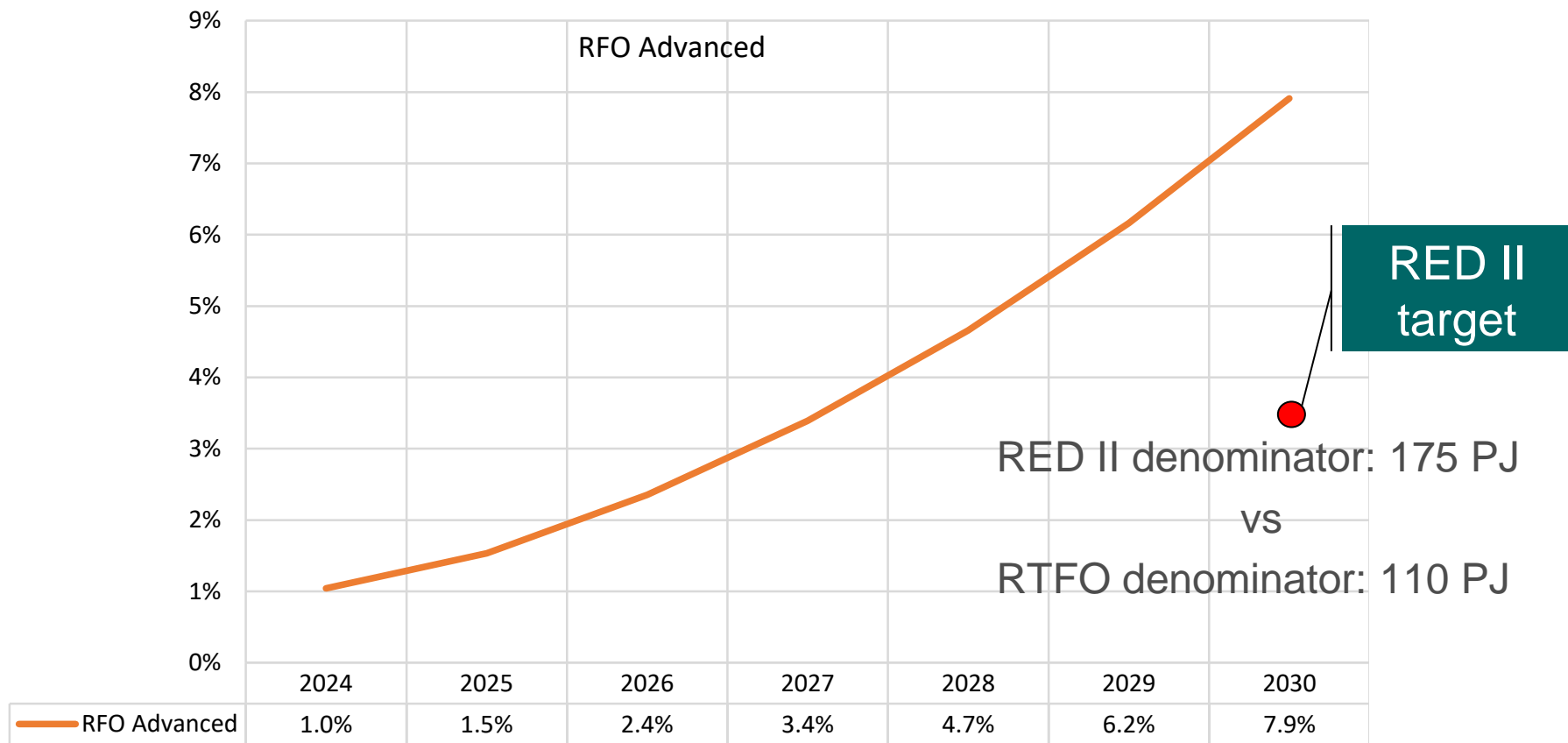
ADVANCED BIOFUEL OBLIGATION



- Discharged with **Green Certs**
- 15% limit on **Green Certs** from previous periods towards advanced obligation
- **Green Certs** also used to meet renewable fuel obligation
- Annex IX Part A: RED II, 1% in 2025 & 3.5% in 2030
- To be ‘translated’ into advanced obligation (i.e. expressed as % fossil diesel and gasoline)

ADVANCED BIOFUEL OBLIGATION

- Annex IX Part A: 1% in 2025 & 3.5% in 2030
- Translates into ↑ obligation rate



CARBON CALCULATOR CHANGES

Other information

Plant was in operation **Between 6/10/2015 and 31/12/**

Were emission savings from soil carbon accumulation via improved agricultural management (Esca) applied in the GHG calculation?

Was the bonus of 25 gCO_{2eq}/MJ claimed when calculating any annual emissions from carbon stock changes caused by land-use change?

Was support provided for the production of the consignment?

Please provide information on the type of support system:

- Factor for emission savings from soil carbon accumulation (e_{sca})
 - Practices that may increase carbon content in soil (e.g. shifting to reduced or zero-tillage, improved crop rotations, improved fertiliser or manure management, using soil improver).
 - Generally relevant for crop-based feedstocks, except where animal manure is used as a feedstock (bonus of 45 gCO_{2eq}/MJ of manure may be claimed)
 - Select 'n/a' for wastes, residues and RFNBOs (except manure)
 - Otherwise select 'Yes' if e_{sca} claimed or 'No'

3. Greenhouse Gas (GHG) information

Total default value according to RED applied Yes No

E = Total GHG emissions from supply and use of the fuel (gCO_{2eq}/MJ)

E = Eec + El + Ep + Etd + Eu - Esca - Eccs - Eccr - Eee gCO_{2eq}/MJ

+ + + + - - - - =

CARBON CALCULATOR CHANGES

- Regulation 5 of SI 33
 - Was support provided to produce the consignment?
 - Support can include, for example, investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes
 - Is included in PoS for biogas supply chains

Other information

Plant was in operation Between 6/10/2015 and 3

Were emission savings from soil carbon accumulation via improved agricultural management (Escala) applied in the GHG calculation? n/a ▾

Was the bonus of 29 gCO₂eq/MJ claimed when calculating any annual emissions from carbon stock changes caused by land-use change? n/a ▾

Was support provided for the production of the consignment? no ▾

Please provide information on the type of support system

CARBON CALCULATOR CHANGES

- Regulation 6 of SI 33 of 2012

- Bonus from carbon stock changes caused by land-use change (restored degraded land) – part of e_1 calculation

$$e_1 \left[\frac{\text{kg CO}_2 \text{ eq}}{\text{ton}} \right] = \left(\frac{CS_R \left[\frac{\text{kg C}}{\text{ha}} \right] - CS_A \left[\frac{\text{kg C}}{\text{ha}} \right]}{\text{yield raw material} \left[\frac{\text{ton}}{\text{ha} \cdot \text{yr}} \right] \cdot 20 [\text{yr}]} \cdot 3.664 \right) - e_B$$

- If land was not in use (agricultural or other) in Jan '08, was severely degraded, and a steady increase in soil carbon stock and reduction in erosion is achieved, then can claim e_B (29 gCO_{2eq}/MJ)
- If a farm/plantation meets the requirements, the info. needs to be forwarded through the supply chain via voluntary scheme Sustainability Declarations and the final biofuel producer can deduct the bonus from the total GHG value of the final product in the final biofuel proof of sustainability (PoS).

Other information

Plant was in operation

Between 6/10/2015 and

Were emission savings from soil carbon accumulation via improved agricultural management (Esca) applied in the GHG calculation?

n/a

Was the bonus of 29 gCO_{2eq}/MJ claimed when calculating any annual emissions from carbon stock changes caused by land-use change?

n/a

Was support provided for the production of the consignment?

no

Please provide information on the type of support system:


CARBON CALCULATOR CHANGES

Country of origin information

Country of origin: -

Place of purchase: -

Sustainability information

Voluntary scheme 1:  -

Certificate number :

Supplier name:

Proof of Sustainability (PoS) for Biofuels and Bioliquids

For biofuels and bioliquids according to the Renewable Energy Directive (RED) and the Fuel Quality Directive (FQD), both amended through Directive (EU) 2015/1513

Unique Number of Sustainability Declaration:

Place and date of dispatch:

Date of issuance:

Supplier

Name:

Address:

Certification System: ISCC EU

Certificate Number:

Recipient

Name:

Address:

Contract Number:

1. General information

Type of Product: Please select

Type of Raw Material: Please select

Additional Information (voluntary):

Country of Origin (of the raw material):

- To assist with tracing the supply chain
- Output from audit programme and consequence of 'mislabelling' case
- Wish to make it easier to check validity of PoS and contact up-stream suppliers

SUSTAINABILITY STATEMENT

- New additions reported in Sustainability Statement

General Information										Sustainability				GHG Savings				Indicative Compliance				
Internal Ref	Admin Co. No. No.	Fuel type	Quantity of fuel	Feedstock	Production process	Country of origin	Place of purchase	Support provided	Type of support	VS 1	VS 2	VS 3	Land use 1 Jan 2008	Carbon intensity	Type of GHG data	Soil carbon	Bonus degraded land	Plant in operation date	RED GHG	RED Biodiversity	RED C-stock	RED compliant (indicative)
AA-1	01	EtOH	300,000	Wheat	NGCHP	POL	DEU	No	-	ISCC	-	-	CROPNP	76	FullChain	Yes	No	Before 2015	No	Yes	Yes	No
BB-1	02	ME	200,000	UCO	-	IRL	IRL	No	-	ISCC	-	-	W/NAR	14	-	n/a	n/a	Between 2015 and 2021	Yes	Yes	Yes	Yes
CC-1	03	G591	150,000	WMANU	-	IRL	IRL	No	-	REDCER	-	-	W/NAR	16	FullChain	n/a	n/a	Between 2015 and 2021	Yes	Yes	Yes	Yes
DD-1	04	CHVO-Road	100,000	TALL1	-	GBR	IRL	No	-	RSBRED	-	-	W/NAR	15	FullChain	n/a	n/a	After 2021	Yes	Yes	Yes	Yes
EE-1	05	ME	175,000	PALM	MetCap	MYS	NLD	No	-	ISCC	-	-	FST10	52	-	n/a	n/a	After 2021	No	Yes	Yes	No

Fuel types: Ethanol (EtOH), Methyl Ester (ME) (biodiesel), Biomethane (G591)

Feedstocks: Used Cooking Oil (UCO), wet manure (WMANU), Category 1 tallow (TALL1), Palm oil (PALM)

Production process: Natural gas in a CHP plant (NGCHP), process with methane capture at oil mill (MetCap)

Country of origin/place of purchase: Poland (POL), Ireland (IRL), Great Britain (GBR), Malaysia (MYS), Germany (DEU), Netherlands (NLD)

Voluntary scheme: International Sustainability & Carbon Certification (ISCC), REDcert-EU (REDCER), Roundtable on Sustainable Biomaterials (RSB) EU RED (RSBEU)

Land use: Cropland non-protected (CROPNP), Waste/non-agricultural residue (W/NAR), Forest 10% - 30% (FST10)

Type of GHG data: Actual value for the entire fuel chain (FullChain), default (-)

REVISED PROCEDURE & GUIDANCE



THE RENEWABLE TRANSPORT FUEL OBLIGATION

(FORMERLY THE BIOFUEL OBLIGATION SCHEME)

GUIDANCE ON:

THE RENEWABLE TRANSPORT FUEL OBLIGATION

&

APPLYING FOR RTFO CERTIFICATES AND CARBON SAVINGS

&

REPORTING AND DEMONSTRATING COMPLIANCE WITH THE SUSTAINABILITY AND GHG SAVINGS CRITERIA

THE RENEWABLE TRANSPORT FUEL OBLIGATION
(FORMERLY THE BIOFUEL OBLIGATION SCHEME)

RTFO CERTIFICATE AND CARBON SAVINGS APPLICATION PROCEDURE

Standard Procedure to be followed by Renewable Transport Fuel Obligation Account Holders when making applications for Renewable Transport Fuel Obligation Certificates and Carbon Savings

Revised March 2023



457-X0066 March 2023 Issue

evelyn
PARTNERS



457-X0070 Revised March 2023

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INDEPENDENT VERIFICATION REPORT (IVR)

- ISAE 3000 – applications for RTFO Certs, *limited* assurance
- Additional RTFO requirements:
 - Statement that ISAE 3000 relied upon and carried out to *limited* assurance
 - Copy of Sustainability Statement
 - ‘Connected person’ statement
 - For grid supplied biogas, copy of cancellation statement for proofs for origin from GNI’s renewable natural gas registry
 - For Levy-unpaid purchases, confirmation mass balance applied correctly
 - For low ILUC-risk feedstock, confirmation that the voluntary scheme is recognised to demonstrate compliance with low ILUC-risk criteria
 - Where resubmission required, acknowledge in resubmitted IVR

INDEPENDENT VERIFICATION REPORT (IVR)

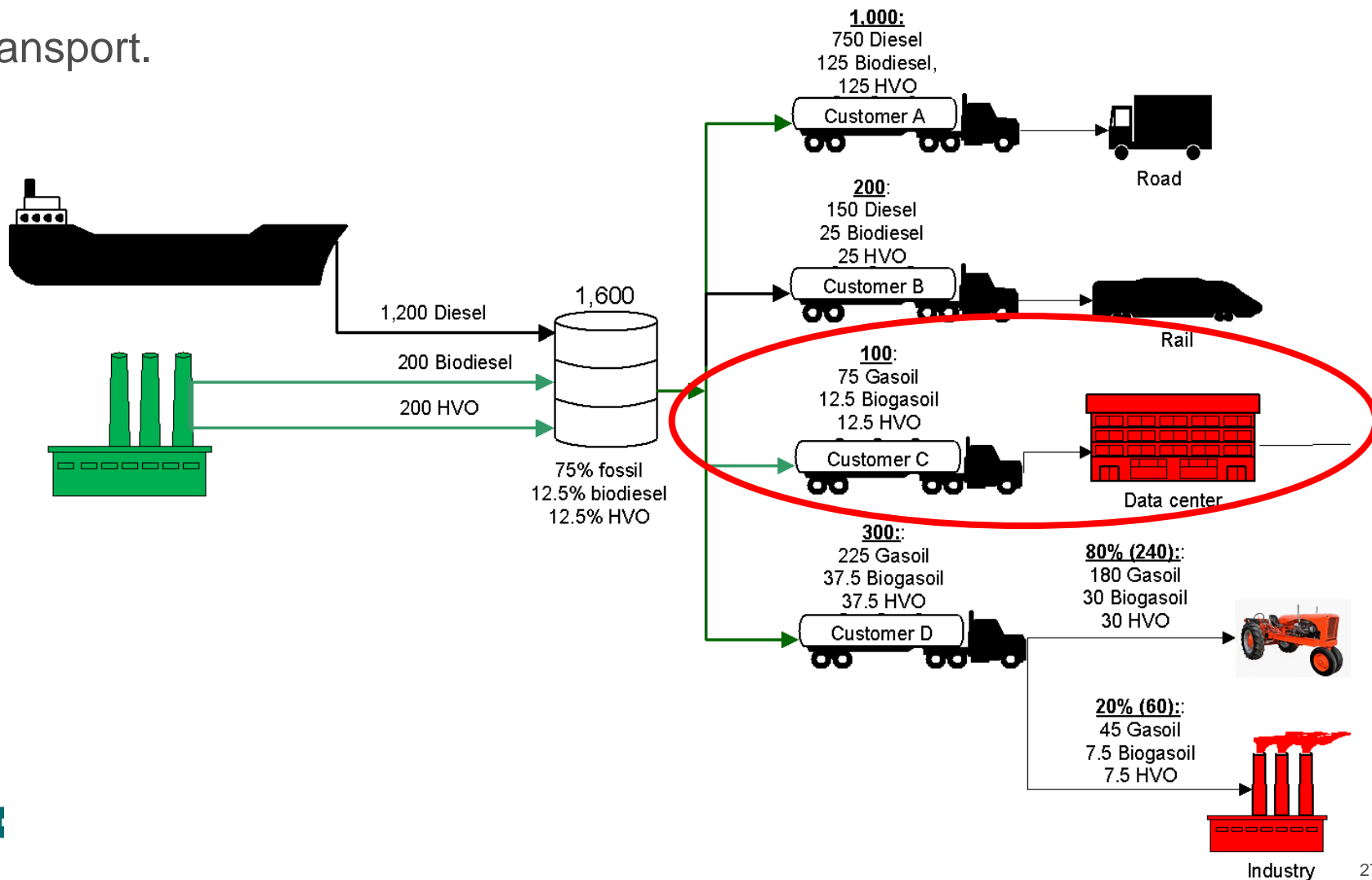
- Avoid AIR (follow Orange Route) by including the following:
 - a. evaluate the frequency and methodology of sampling & robustness of sustainability criteria related data
 - b. verify the systems used are accurate, reliable and protected against fraud
 - c. Include verification of ‘additional sustainability information’:
 - a. whether the bonus for improved agriculture was used
 - b. whether emission savings from soil carbon accumulation via improved agricultural management (Esca) was applied
 - d. Report how the impacts on soil quality and soil carbon are monitored and managed (applies to waste and residues derived from agricultural land where the operators or national authorities have monitoring or management plans in place)

MASS BALANCE

- Where renewable fuel blended with gasoil is sold for non-transport purposes and it is sold as renewable fuel, then must report sale as non-transport.
- See Guidance, section 4.1.65 ... *where renewable fuel is reported as being contained in a gasoil blend, a maximum 80:20 split between transport and non-transport (excluding marine) can be reported in the OLA Return*
- Section 4.1.66... *Where the RTFO account holder knows that the renewable fuel blended with gasoil is supplied for non-transport purposes, it shall be reported as being supplied for non-transport and Certificates cannot be claimed in respect of such disposals*

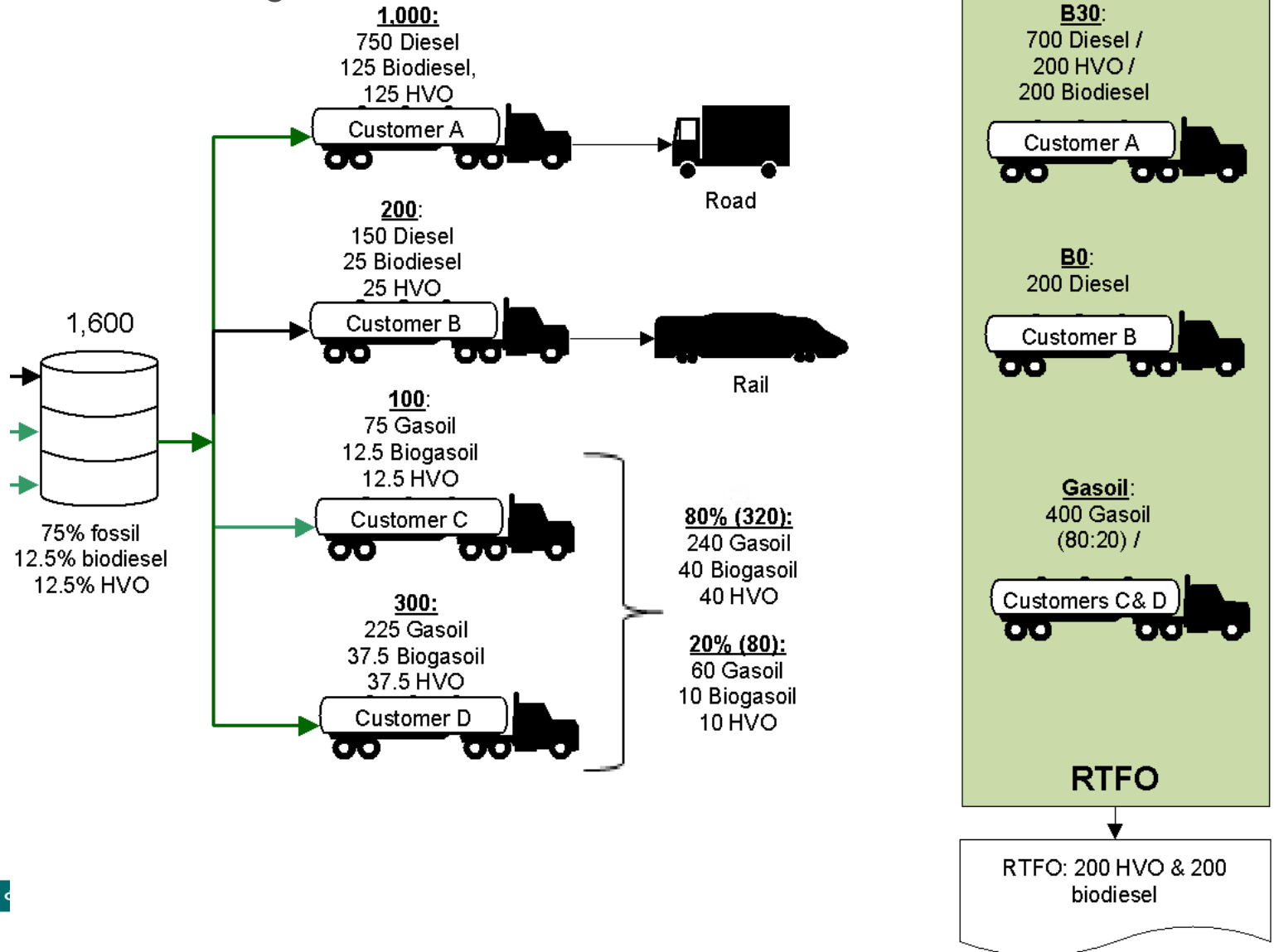
MASS BALANCE – EXAMPLE 1

- Where renewable fuel blended with gasoil is sold for non-transport purposes and it is sold as renewable fuel, then must report sale as non-transport.



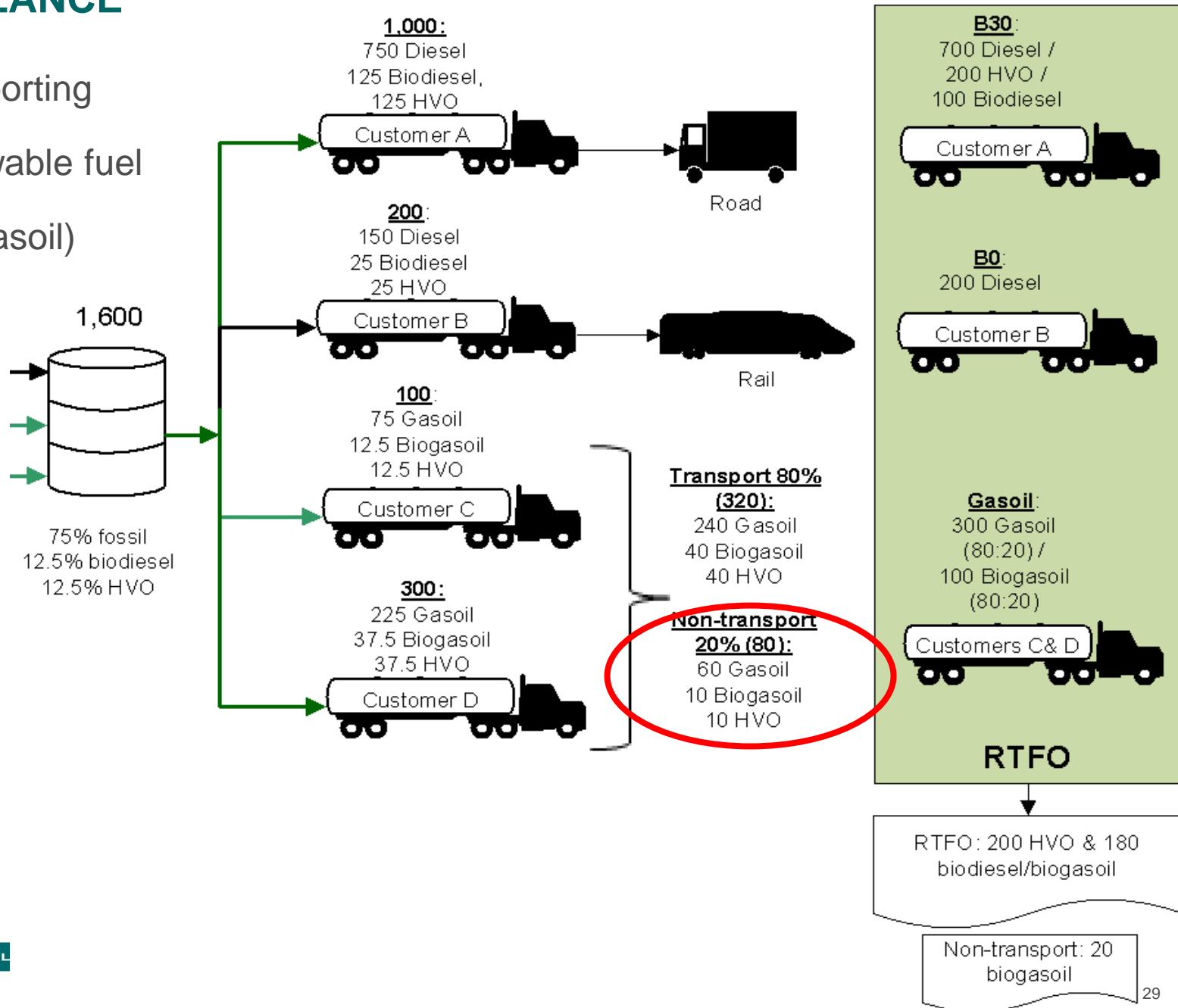
MASS BALANCE – EXAMPLE 2

- Where renewable fuel sold as gasoil, but gasoil customer has no awareness of renewable fuel blending

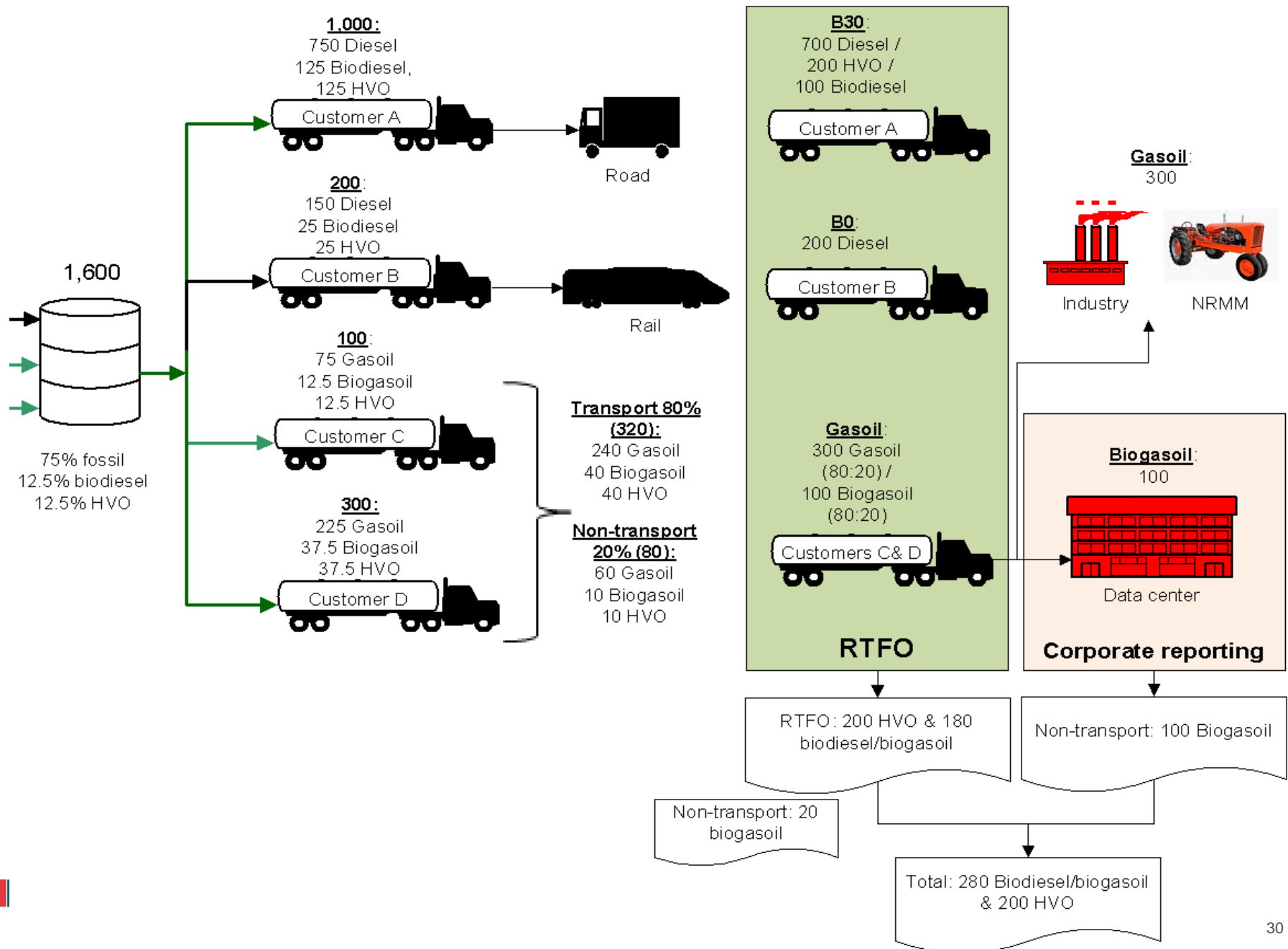


MASS BALANCE

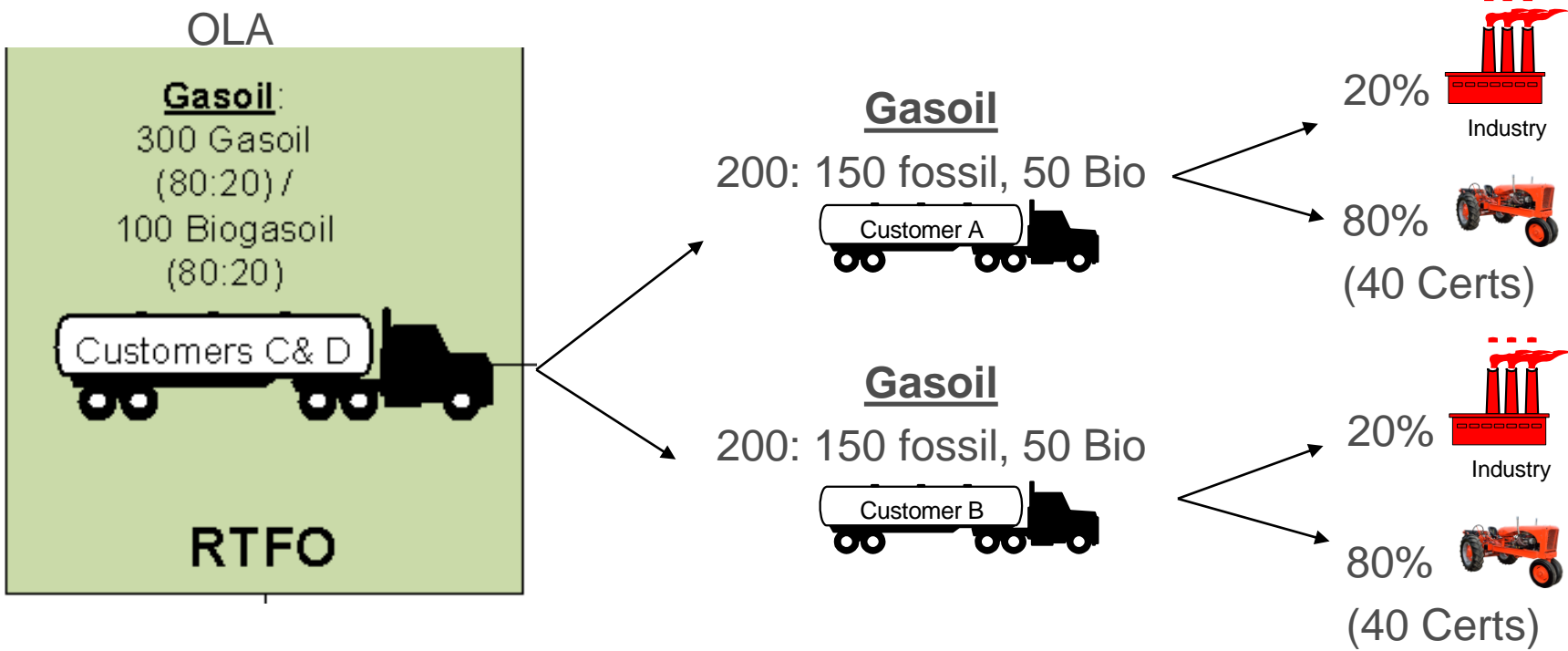
- RTFO reporting
(where renewable fuel reported in gasoil)



MASS BALANCE - CONCERN



MASS BALANCE – CONCERN



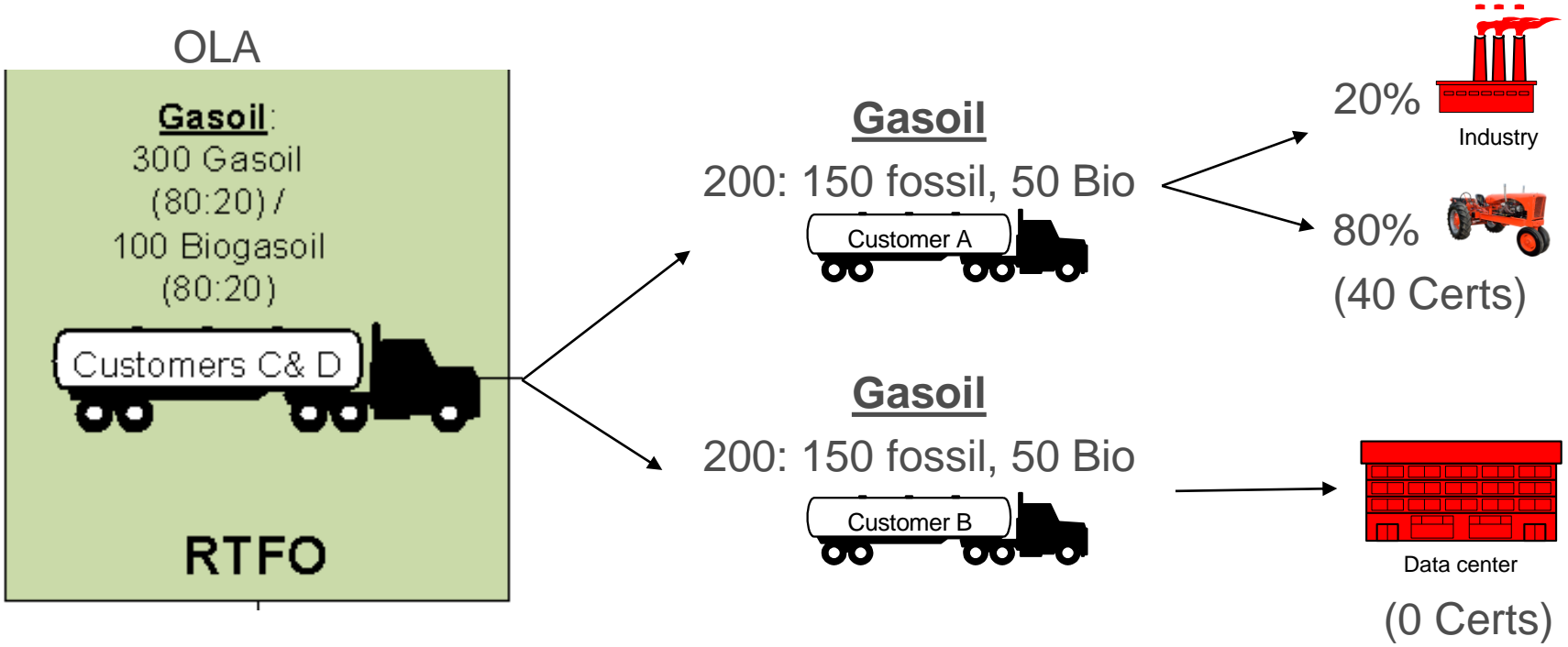
80 Certs

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80 Certs



MASS BALANCE - CONCERN



80 Certs

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40 Certs



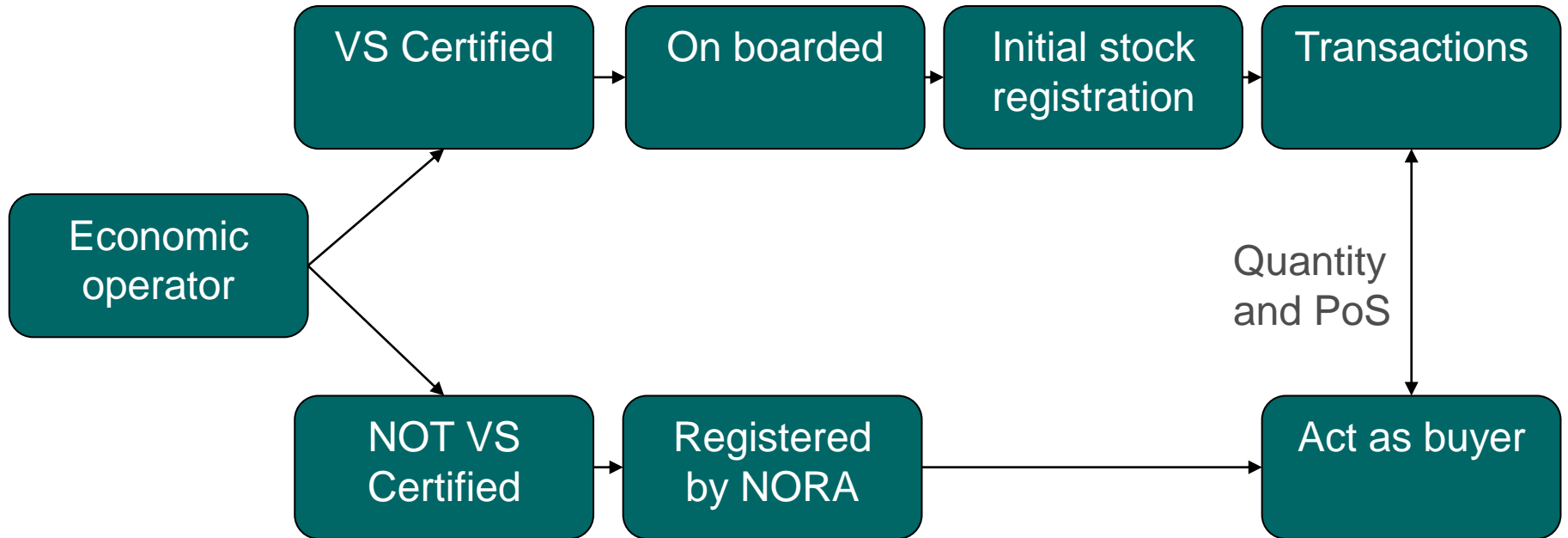
RED II – UNION DATABASE (UDB)

- Commission finalising UDB – all voluntary scheme certified account holders should have registered and ‘on-boarded’
- There is a UDB webpage:
<https://wikis.ec.europa.eu/display/UDBBIS/Union+Database+for+Biofuels+--+Public+wiki>
- Training documentation:
 - [Initial stock registration](#) – before a transaction (buying/selling stock), register ‘initial’ amount of stock (feedstock, intermediary products or fuels) and sustainability data
 - [Seller transaction](#) – facilitates the electronic movement of stock and associated sustainability data to a buyer

RED II – UDB

- Training documentation:
 - Point of Origin Buyer Trade – first point at which feedstock is entered into the UDB (from ‘sourcing contact’) and then sold to a buyer (also Point of Origin Trade (Annex IX – Part B))
 - Seller Transaction – facilitates the electronic movement of stock and associated sustainability data to a buyer
 - Buyer (Accept/reject) Transaction – a transaction initiated by a seller must either be accepted or rejected by a buyer.

RED II - UDB

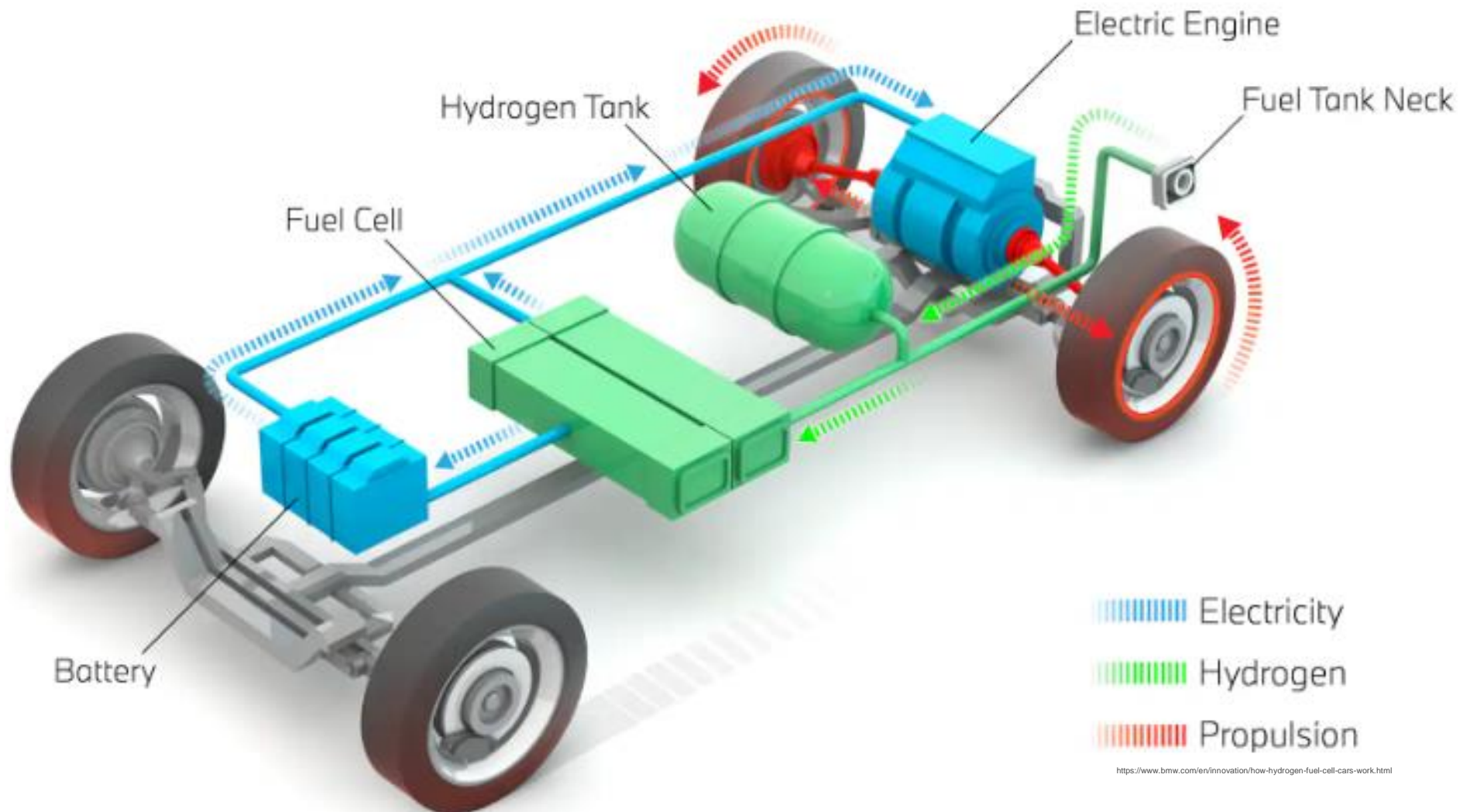


RED II – UDB

- Implementing Regulation ([link](#)) deals with certification and rules for voluntary schemes to support UDB – stipulates legal obligations for economic operators, certification bodies, voluntary schemes and Member States.
- RTFO Team will need to revise procedure and guidance to include for UDB requirements in more detail, once fully clarified.

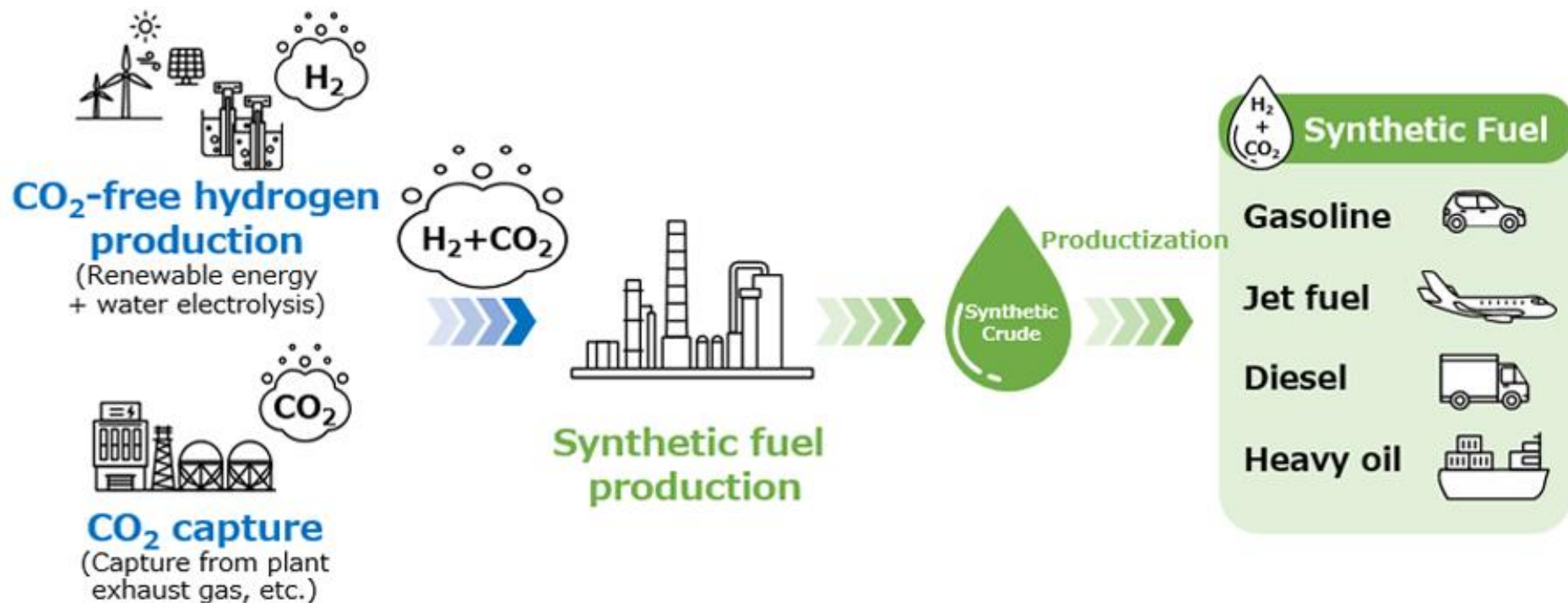
RFNBOS – RENEWABLE FUEL OF NON-BIOLOGICAL ORIGIN

- Renewable H₂ for direct combustion or fuel cell



RFNBOS

- E-fuels (synthetic fuels)



https://www.eneos.co.jp/english/company/rd/intro/fuel/synthetic_fuel.html

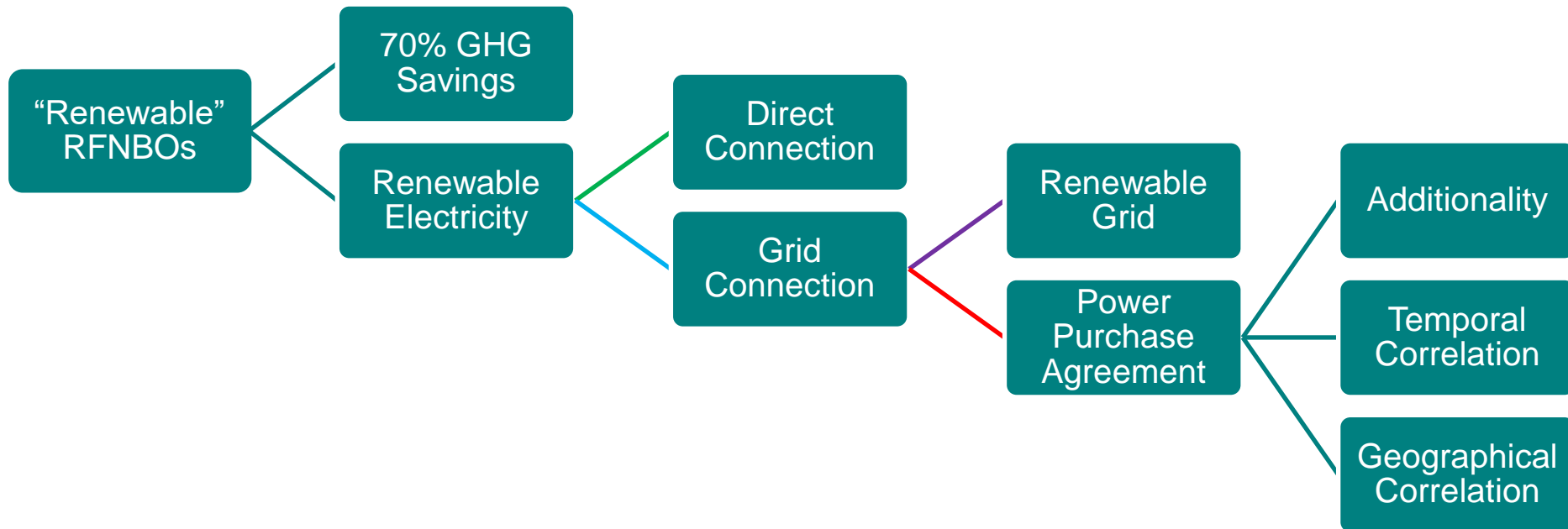
RFNBOS – DELEGATED REGULATION

- Methodology (Delegated Regulation (EU) 2023/1184)
 - Direct connection (Article 3)
 - Grid connection (Article 4)
 - Bidding zone > 90% renewable elec in previous year
 - RFNBO production relies on grid electricity produced during an imbalance settlement period where renewable energy curtailed and RFNBO production reduces curtailment
 - Bidding zone emission intensity < 18 gCO_{2eq}/MJ, provided RFNBO has Power Purchase Agreement that covers electricity needs, and there is temporal and geographical correlation

IMPLEMENTING REGULATIONS (DELEGATED ACTS)

- RFNBOs, Grid connection (Article 4) continued:
 - Where $> 18 \text{ gCO}_{2\text{eq}}/\text{MJ}$ provided RFNBO has Power Purchase Agreement that covers electricity needs, there is temporal and geographical correlation, **and** satisfies additionality.
- *Additionality*: new renewable energy
- *Temporal correlation*: the renewable electricity is placed on the market when the RFNBO is produced (until 2029, within same calendar month, thereafter within the same one-hour period)
- *Geographical correlation*. Relies on bidding zones – must be in the same bidding zone, or an adjacent bidding zone when electricity prices are higher in the adjacent zone.

SUMMARY



IMPLEMENTING REGULATION (DELEGATED ACTS)

ANNEX

Annex IX to Directive (EU) 2018/2001 is amended as follows:

(1) in Part A, the following feedstocks are added:

“

- (r) Alcoholic distillery residues and wastes (fusel oils) not fit for use in the food or feed chain;
- (s) Raw methanol from kraft pulping stemming from the production of wood pulp;
- (t) Non-food crops grown on severely degraded land, not suitable for food and feed crops.”.

(2) in Part B, the following feedstocks are added:

“

- (c) Bakery and confectionary residues and waste not fit for use in the food and feed chain;
- (d) Drink production residues and waste not fit for use in the food and feed chain;
- (e) Fruit and vegetable residues and waste not fit for use in the food and feed chain, excluding tails, leaves, stalks and husks;
- (f) Starchy effluents with less than 20% starch content not fit for use in the food and feed chain;
- (g) Brewers' Spent Grain not fit for use in the food and feed chain;
- (h) Liquid whey permeate;
- (i) Deoiled olive pomace;
- (j) Damaged crops that are not fit for use in the food or feed chain, excluding substances that have been intentionally modified or contaminated in order to meet this definition;
- (k) Municipal wastewater and derivatives other than sewage sludge;
- (l) Brown grease;
- (m) Cyanobacteria;
- (n) Vinasse excluding thin stillage and sugarbeet vinasse;
- (o) Dextrose ultrafiltration retentate from sugar refining;
- (p) Intermediate crops, such as catch crops and cover crops that are grown in areas where due to a short vegetation period the production of food and feed crops is limited to one harvest and provided their use does not trigger demand for additional land and provided the soil organic matter content is maintained.”.

AUDITING

- Carry out annual auditing of RTFO account holders
- Cooperation generally very good, but:
 - Audit team need ready access to supporting documentation
 - Either via electronic files/systems, paper-based records, or mix (preference for electronic)
 - Access to personnel responsible for completing the OLA return and applications for RTFO Certs
 - Better to have separate room with large screen
- Refer to Guidance, section 7.62 to 7.85.



NEXT UP



-- Thank you for your attention --