



BOS Online System (BOSOS) Modification



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The National Oil Reserves Agency



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PURPOSE OF BOSOS MODIFICATION



- To cater for ILUC and FQD
- Other streamlining:
 - Applications for BOS Certs & carbon savings
 - Dashboards

ILUC



BOS obligation - all sustainable biofuel			
0.25% sub-target	7% ILUC indicator		
If listed in Annex IX Part A and those 'grandfathered'	If not listed in Annex IX and not orange qualified (a cereal, other starch-rich crops, a sugar crop or an oil crop)	If listed in Annex IX Part B	If not listed in Annex IX and not a cereal, other starch-rich crops, a sugar crop or an oil crop, except where the cereals, other starch-rich crops, sugar crops or oil crops are grown on degraded land.
POME SBE	Barley Corn	UCO Cat 1 tallow	Cat 3 tallow
Double	Single	Double	Single
Green Certs	Red Certs	Orange Certs	

CARBON SAVINGS – FQD

- 6% reduction in '*life cycle greenhouse gas emissions per unit energy*' in 2020 (Art. 7a)
- How?
 - Biofuels (same sustainably criteria apply)
 - Renewable electricity (electric vehicles)
 - Upstream Emission Reductions (UERs)

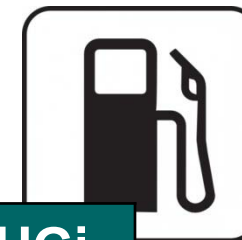
GREENHOUSE GAS INTENSITY (GHGi)

- Life-cycle greenhouse gas emission per unit energy of fuel

$$GHGi = \frac{GHG \text{ emission}}{Energy} [gCO_{2eq}/MJ]$$

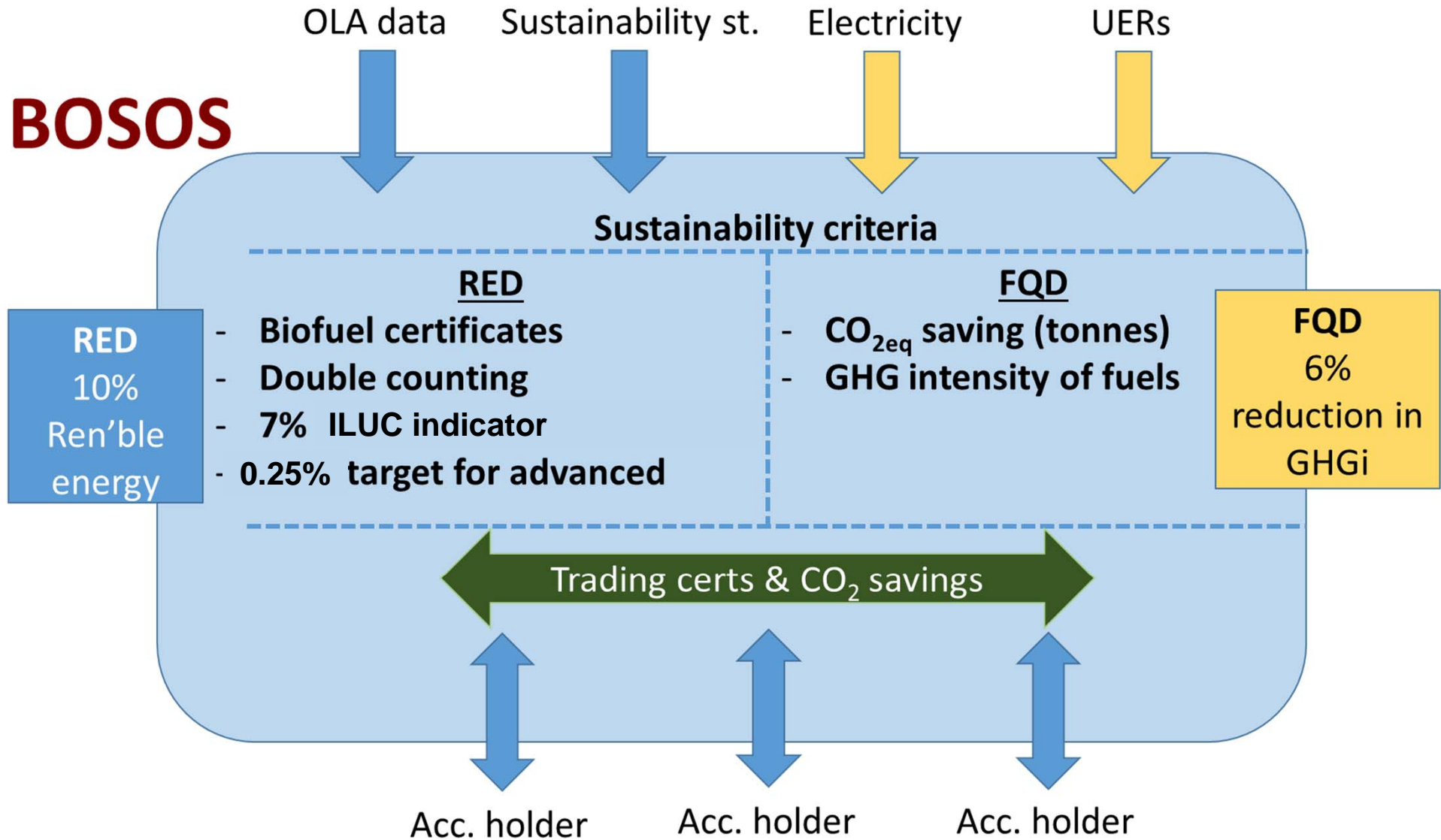
- Depends on:
 - Fuel type (diesel, gasoline, biodiesel ME, bioethanol, etc.)
 - Feedstock (UCO, tallow cat 1/2/3, etc.)
 - Fuel chain (processing, transport, etc.)
- Supplier's must reduce the GHGi of their transport **fuel mix** by 6%

FQD DIRECTIVE – THE NUMBERS



Fuel Type	GHG intensity (gCO _{2eq} /MJ)	Reduction in GHGi
2010 baseline	94.1	-
2020 target	88.5	6%
<i>2015 'average' supplier</i>	<i>92.0</i>	<i>2.3%</i>
Petrol (default)	93.3	0.9%
Diesel (default)	95.1	-1.1%
Biodiesel (rape seed)	51.4	45%
Bioethanol (wheat)	39	59%
Bioethanol (EC corn)	26	72%
Biodiesel (UCO)	12.8	86%

RED and FQD implementation



BOSOS DEMO



- Applications
 - BOS Certs & carbon savings
 - Carbon savings from renewable electricity & UERs
- *Break (BOS certs awarded)*
- Dashboards
- Transfers
 - Certs
 - Carbon savings
- Statements of account