

# Carbon and Sustainability reporting under the RTFO

## Company workshop




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## Sustainability reporting based on existing voluntary standards

	Environmental standard	Social standard
RTFO Meta Standard 	Full audit against criteria OR A standard + supplementary checks	Full audit against criteria OR A standard + supplementary checks
Qualifying Standard 	ACCS      FSC Basel      RSPO LEAF      SAN/RA A benchmarked standard + supplementary checks	Basel RSPO SAN/RA A benchmarked standard + supplementary checks
Benchmarked Standard 	Genesis crops module; Scottish Quality Cereals Qualitat und Sicherheit; Fedioil; SA8000; GlobalGAP; IFOAM; ProTerra	

-  Counts towards data capture target AND environmental performance
-  Counts towards data capture target only

# Filling in the Batch report

What information to report on: example monthly report

General Information						Sustainability Information				Carbon Information	
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	Carbon intensity incl LUC g CO <sub>2</sub> e / MJ	Accuracy level
33006		Biodiesel	800,000	Oilseed rape	UK	ACCS	QS		Cropland	55	2
33008		Biodiesel	100,000	Palm oil	Malaysia	RSPO	QS	QS	Cropland	45	2
33009		Biodiesel	100,000	Soy	Argentina	-			unknown	177	2

- Reported batches are **not** physical batches
- Batches with same sustainability but different carbon can be aggregated
- Split batches per feedstock, country, standard, LU
- Batch reports need to be in by the 14<sup>th</sup> of the next month
- “Unknown” reporting allowed
- Batch reports are linked to issuing of RTFCs
- Also biofuel with unknown feedstocks must be reported to earn RTFCs
- Batch reports are treated confidential by RFA

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David's Fuel Company Ltd

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Reported Month

Account Maintenance

## Carbon & Sustainability Report

Reported Month End: 14/11/2009

Reported Deadline: 14/12/2009

Certificates Awarded: 14/01/2010

Renewable Fuel Type	Total from Volume Return	Total from C & S Report	Difference
Biodiesel	300,000	100,000	-200,000
Bioethanol	125,000	125,000	0
Biogas	0	0	0

Add Upload Status: Not Submitted Apply for Certificates

Batch Reference	Fuel Type	Quantity (standard litres)	Biofuel Feedstock	Feedstock Origin	Internal Batch Number	Sustainability Information			Carbon Information		
						Standard	Environment Level	Social Level	Land Use in Nov 2005	Carbon Intensity	Accuracy Level
<a href="#">241</a>	Bioethanol	50,000	Corn	UNITED STATES	Ref1234567	Assured Combinable Crops Scheme	QS	QS	Forestland	46	3
<a href="#">242</a>	Bioethanol	75,000	Sugar beet	UNITED KINGDOM		Assured Combinable Crops Scheme	QS	QS	Forestland	40	3
<a href="#">243</a>	Biodiesel	10,000	UCO	UNITED KINGDOM		By-product	QS	QS	By-product	99	3
<a href="#">244</a>	Biodiesel	10,000	Tallow	UNKNOWN		By-product	QS	QS	By-product	50	2
<a href="#">245</a>	Biodiesel	30,000	Oilseed rape	BELGIUM		GlobalGAP			Grassland - ag use	20	3
<a href="#">246</a>	Biodiesel	30,000	Soy	UNITED KINGDOM		Assured Combinable Crops Scheme	QS	QS	Grassland - non-ag use	30	3
<a href="#">247</a>	Biodiesel	20,000	Palm	INDONESIA		Roundtable on Sustainable Palm Oil	QS	RTFO	Forestland	24	2



### Edit Batch

Reported Month End: 14/11/2009

Close Save

Batch Reference	242
Fuel Type *	Bioethanol
Quantity of Fuel (standard litres) *	75,000
Biofuel Feedstock *	Sugar beet
Feedstock Origin *	UNITED KINGDOM
Standard	Assured Combinable Crops Scheme
Environmental Level	QS
Social Level	QS
Land Use in Nov 2005 *	Forestland
Carbon Intensity	40 g CO <sub>2</sub> e / MJ
Carbon Information Accuracy Level	3
Internal Batch Number	

Automatically generated

See Annex A for list

See Annex H

See Annex I

Will Auto-fill depending on standard entered

See Annex G or use Part 2 to undertake detailed calcs

Optional

# Example batch report (1/4)

General Information						Sustainability Information				Carbon Information	
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	Carbon intensity incl LUC g CO <sub>2e</sub> / MJ	Accuracy level
33006		Biodiesel	600,000	Oilseed rape	UK	ACCS	QS		Cropland	55	2
33007		Biodiesel	200,000	Oilseed rape	Germany	GlobalGAP			Cropland	52	2
33008		Biodiesel	100,000	Palm oil	Malaysia	RSPO	QS	QS	Cropland	45	2
33009		Biodiesel	100,000	Soy	Argentina	Unknown			Grassland	177	2

- Split batches with feedstock from different countries
- GlobalGAP is *not* a Qualifying Standard (Annex A)

# Example batch report

General Information						
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard
33006		Biodiesel	600,000	Oilseed rape	UK	ACCS
33007		Biodiesel	200,000	Oilseed rape	Germany	GlobalGAP
33008		Biodiesel	100,000	Palm oil	Malaysia	RSPO
33009		Biodiesel	100,000	Soy	Argentina	Unknown

- Non-Qualifying Standard (GlobalGAP) + supplement
  - Annex D provides gap-criteria
  - Chapter 4.3 provides audit guidelines

Principles and Criteria	EurepGAP IFA
<b>P 1. Carbon Conservation</b>	
C 1.1 Preservation of above and below ground carbon stocks (reference date 01-11-2005).	X
<b>P2. Biodiversity conservation</b>	
C 2.1 Compliance with national laws and regulations relevant to biomass production and the area where biomass production takes place.	✓
C 2.2 No conversion of high biodiversity areas after 01-11-2005	X
C 2.3 Identification and conservation of important biodiversity on and around the production unit.	P
<b>P3. Soil conservation</b>	
C 3.1 Compliance with national laws and regulations relevant to soil degradation and soil management.	✓
C 3.2 Application of best practices to maintain and improve soil quality.	✓
<b>P 4. Sustainable Water Use</b>	
C 4.1 Compliance with national laws and regulations relevant to contamination and depletion of water sources.	✓
C 4.2 Application of <i>best practices</i> to reduce water usage and to maintain and improve water quality.	✓
<b>P5. Air quality</b>	
C 5.1 Compliance with national laws and regulations relevant to air emissions and burning practices	✓
C 5.2 No burning as part off land clearing or waste disposal	X

# Example batch report (3/4)

General Information						Sustainability Information				Carbon Information	
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	Carbon intensity incl LUC g CO <sub>2</sub> e / MJ	Accuracy level
33006		Biodiesel	800,000	Oilseed rape	UK	ACCS	QS		Cropland	55	2
33007		Biodiesel	100,000	Palm oil	Malaysia	RSPO	QS	QS	Cropland	45	2
33008		Biodiesel	100,000	Soy	Argentina	Unknown			Grassland	177	2
33009		Bioethanol	800,000	Sugar cane	Brazil	Meta-Standard	RTFO	RTFO	Cropland	24	2
33010		Bioethanol	200,000	Unknown	Unknown	Unknown				61	0

- If no standard is available, successful audit against Meta-Standard is accepted. (Chapter 4.3)

# Example batch report: by-products (4/4)

General Information						Sustainability Information				Carbon Information	
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	Carbon intensity incl LUC g CO <sub>2</sub> e / MJ	Accuracy level
33010		Biodiesel	250,000	UCO	UK	By-product	QS	QS	By-product	13	2

- By-products automatically achieve QS-level: No standard needed
- No reporting on LUC needed
- (Reporting on carbon still required)
- List of by-products in Annex B

# Questions?

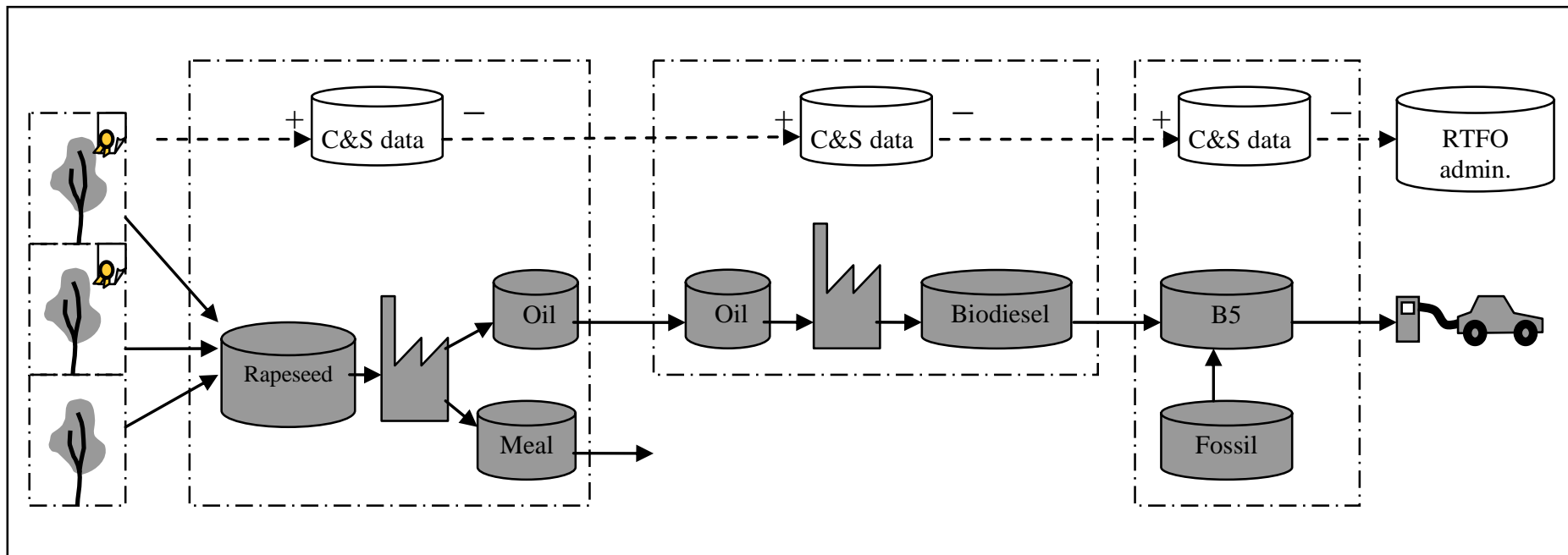


# Flow of information through the chain

- Why a chain of custody?
  - Reported information must be verifiable
  - No double counting
- What type of system can I use?
  - Track-and-trace, Mass-Balance, Book-and-claim
  - Use Mass-Balance if no certifiable system is available
  - Future book-and-claim systems will be evaluated by RFA
- Can I swap C&S data if I practice equivalence trading as under CAP?
  - Yes



# RTFO Mass Balance: Units in = Units out



- Each *legal owner* of the product keeps C&S records of:
  - Input & Output
  - Monthly inventory
  - Conversion factor
- *Invoice or related doc* is C&S data carrier
- Detailed guidance in Chapter 7.4

# Examples of COC records (Annex F)

## Input record rapeseed crusher

Order Number	Transaction date	Supplying company	Quantity (tonne)	Product	Product Origin	Standard	Land use on 30 Nov 2005	Carbon intensity (g CO <sub>2</sub> e / tonne)
22001	15-4-2008	F1	1,000	Rapeseed	UK	LEAF	Cropland	949
22002	15-4-2008	F2	1,000	Rapeseed	UK	LEAF	Cropland	987
22001	15-4-2008	F3	1,000	Rapeseed	UK	-	Cropland	987

## Output record rapeseed crusher

Order Number	Transaction date	Receiving Company	Quantity (tonne)	Product	Product Origin	Standard	Land use on 30 Nov 2005	Carbon intensity (g CO <sub>2</sub> e / tonne)
23001	20-4-2008	B	400	RSO	UK	LEAF	Cropland	2287
23002	20-4-2008	B	400	RSO	UK	-	Cropland	2287

# Example of COC records (Annex F)

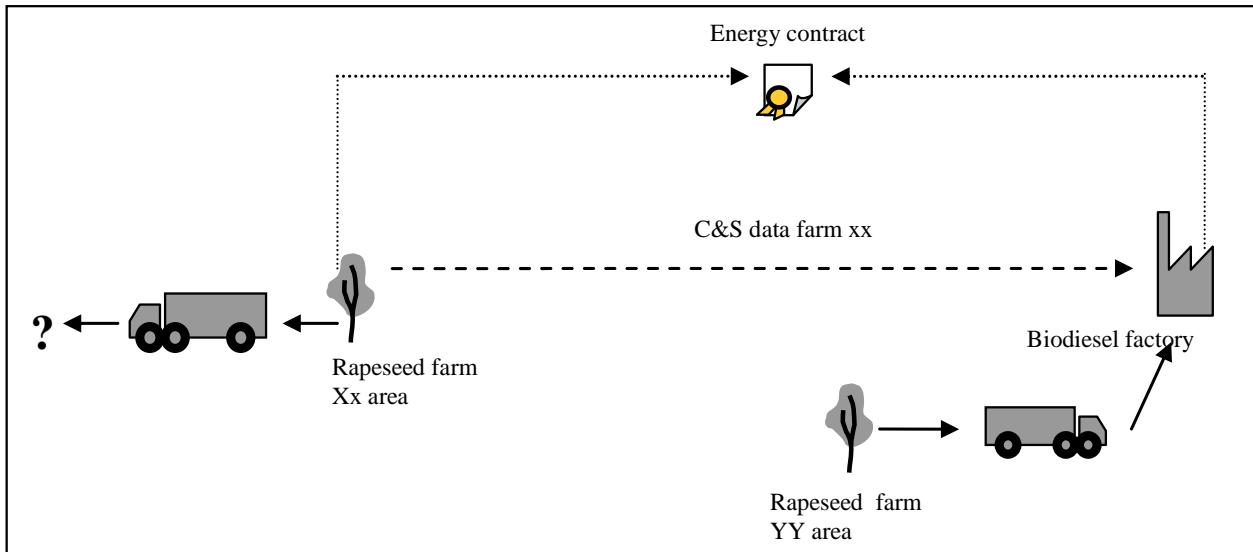
Crusher conversion factor (no record keeping = default value)

	<b>Rapeseed to rapeseed oil</b>
Input	Rapeseed
Output	Rapeseed oil
Unit	kg rapeseed oil / kg rapeseed
Value	0.4
Valid from	01/01/2008
Valid until	01/06/2008

Crusher periodic inventory record

Product	Product Origin	Standard	Land use on 30 Nov 2005	Carbon intensity (g CO <sub>2</sub> e / tonne)	Inventory (tonne) 15-4-2008	Input (tonne)	Output (tonne)	Inventory (tonne) 15-5-2008
OSR eq	UK	LEAF	Cropland	2287	1,000	800	400	1,400
OSR eq	Romania	-	Cropland	2287	2,000	0	0	2,000
OSR eq	UK	-	Cropland	2287	0	400	400	0

# Equivalence trading (chapter 7.5)



- Equivalence trading as under CAP is always allowed
- If the C&S data of the *contracted* farm is reported:
  - All CAP rules apply
  - Data swapping is only allowed for the same feedstock
  - C&S data must be from same farm
  - Default transport values for carbon calculations
  - No double counting must be proven

# Questions



# Annual report

- Content
  - Aggregated data from monthly reports
  - Additional (qualitative sustainability info)
  - Verifier statement
- Formats
  - Guidelines for Format in Chapter 5.2
  - Fixed table formats for data (supported in carbon tool)
- Timing:
  - Verified annual report due by 28<sup>th</sup> of September
- Annual reports are public

# Tables in annual report (1/2) (Chapter 5.2)

Summary of all fuels and feedstocks

- Based on batch reports (no new info)

Feedstock	General		Environmental	Social	Carbon	
	% Fuel supplied by feedstock type (by volume)	% Data reported on biofuel characteristics	% Meeting Qualifying and/or RTFO standard	% Meeting Qualifying and/or RTFO standard	Average carbon intensity g CO2e / MJ	Average % GHG saving
<b>Biodiesel</b>						
Palm oil	10	50	20	20	43	50
Rapeseed oil	70	<b>82</b>	80	0	55	36
Soy oil	10	45	10	10	59	31
Unkown	10	0	0	0	55	36
<b>Bioethanol</b>						
Sugar cane	20	30	10	10	20	76
Corn	10	40	70	0	62	27
Wheat	40	70	80	10	65	23
Sugar beet	20	70	75	0	51	40
Unknown	10	0	0	0	78	8
<b>Weighted average (all fuels)</b>	-	<b>59</b>	<b>58</b>	<b>5</b>	<b>54</b>	<b>36</b>
<b>Target (2008/9)</b>	-	<b>50</b>	<b>30</b>	-	-	<b>40</b>

# Tables in annual report (1/2) (Chapter 5.2)

Summary of all fuels and feedstocks

- Based on batch reports (no new info)

Feedstock	Volume of fuel from feedstock (litres)	General		Environmental	Social	Carbon	
		% Fuel supplied by feedstock type (by volume)	% Data reported on biofuel characteristics	% Meeting Qualifying and/or RTFO standard	% Meeting Qualifying and/or RTFO standard	Average carbon intensity g CO2e / MJ	Average % GHG saving
<b>Biodiesel</b>							
Palm oil	1,000,000	10	50	20	20	43	50
Rapeseed oil	7,000,000	70	82	80	0	55	36
Soy oil	1,000,000	10	45	10	10	59	31
Unkown	1,000,000	10	0	0	0	55	36
<b>Bioethanol</b>							
Sugar cane	2,000,000	20	30	10	10	20	76
Corn	1,000,000	10	40	70	0	62	27
Wheat	4,000,000	40	70	80	10	65	23
Sugar beet	2,000,000	20	70	75	0	51	40
Unknown	1,000,000	10	0	0	0	78	8
<b>Weighted average (all fuels)</b>	<b>20,000,000</b>	-	<b>59</b>	<b>58</b>	<b>5</b>	<b>54</b>	<b>36</b>
<b>Target (2008/9)</b>	-	-	<b>50</b>	<b>30</b>	-	-	<b>40</b>

# Tables in annual report (1/2) (Chapter 5.2)

Summary of all fuels and feedstocks

- Based on batch reports (no new info)

General Information						Sustainability Information				% data reported on biofuel characteristics
Batch number	Internal Batch number (optional)	Fuel type	Quantity of fuel (litres)	Biofuel Feedstock	Feedstock Origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	
33006		Biodiesel	600,000	Oilseed rape	UK	ACCS	QS		Cropland	100%
34007		Biodiesel	200,000	Oilseed rape	Germany	GlobalGAP			Unknown	75%
35008		Biodiesel	100,000	Oilseed rape	Ukraine	Unknown			Unkown	50%
36009		Biodiesel	500,000	Oilseed rape	Unknown	Unknown			Unknown	25%
33006		Biodiesel	800,000	Oilseed rape	UK	ACCS	QS		Cropland	100%
33006		Biodiesel	600,000	Oilseed rape	UK	ACCS	QS		Cropland	100%
33006		Biodiesel	300,000	Oilseed rape	UK	ACCS	QS		Unknown	75%
Weighted average (based on <b>volume</b> ) for oilseed rape biodiesel										<b>82%</b>

# Annual table (2/2) (Chapter 5.2)

- Detailed information per feedstock
  - Based on batch reports (no new info)

General information		Sustainability information				Carbon information	
% of total palm oil	Feedstock origin	Standard	Env Level	Social Level	Land use on 30 Nov 2005	Carbon intensity incl LUC (g CO2e / MJ)	GHG saving (%)
20	Malaysia	RSPO	QS	QS	Cropland	45	48
60	Malaysia	Unknown	-	-	Unknown	45	48
20	Indonesia	Unknown	-	-	Unknown	45	48

# Additional info (Chapter 5.2)

- Fuel supplier
  - Past year and planned activities to improve C&S performance
  - Standard development efforts (e.g. membership RSPO)
  - Production on idle land (Annex E)
  - Improve type of carbon data (real versus default)
  - Environmental management certificates (e.g. ISO 14001)
  - Successful prosecutions for any environmental or social issues related to biofuels
  - Reference to existing CSR reports
- Other parties in supply chain
  - % of total feedstock producer's production which meets sustainability standard
  - Environmental management certificates (e.g. ISO 14001)
  - Successful prosecutions for any environmental or social issues related to biofuels

# Questions



# Verification

## Process

- Annual not monthly
- Reporting company responsible for verifier statement
- Moderate assurance (ISAE 3000): risk-based
- Results in verifier statement -> annual report

## What data is verified and who needs to keep the evidence?

- All info in annual report is subject to verification
- Evidence does not travel down supply chain
- > COC records provide traceability to evidence
- Certificates of existing standards = proof of compliance
- Other claims (carbon, land use, etc) subject to verification



# Good practice

- Involve verifier early
- Liaise with supply chain to set up chain of custody
- Produce data in a consistent manner
- Document the system
- Organise internal checks of data



# Questions

