

# BOS

## Briefing Session



30<sup>th</sup> October 2018

# TODAY'S AGENDA

- BOSOS changes – recap
- Biofuel forecasts
- RED II
- DCCAE
  - Policy statement; RED II; consultation 2019; ILUC; climate action fund
- Biomethane in transport
- Open discussion



# RED and FQD implementation

**BOSOS**

OLA data

Sustainability st.

Electricity

UERs

## Sustainability criteria

### RED

- Biofuel certificates
- Double counting
- Indicator for crop-based biofuel
- 0.25% target for advanced

### FQD

- CO<sub>2eq</sub> saving (tonnes)
- GHG intensity of fuels

**FQD**  
6%  
reduction in  
GHGi

**RED**  
10%  
Ren'ble  
energy

Trading certs & CO<sub>2</sub> savings

Acc. holder

Acc. holder

Acc. holder

## NEW BOSOS

# NORA'S BOS & FQD PORTAL



Dashboards  
(BOS and FQD)



Apply for BOS  
Certs



Transfer BOS  
Certs



BOS Statements

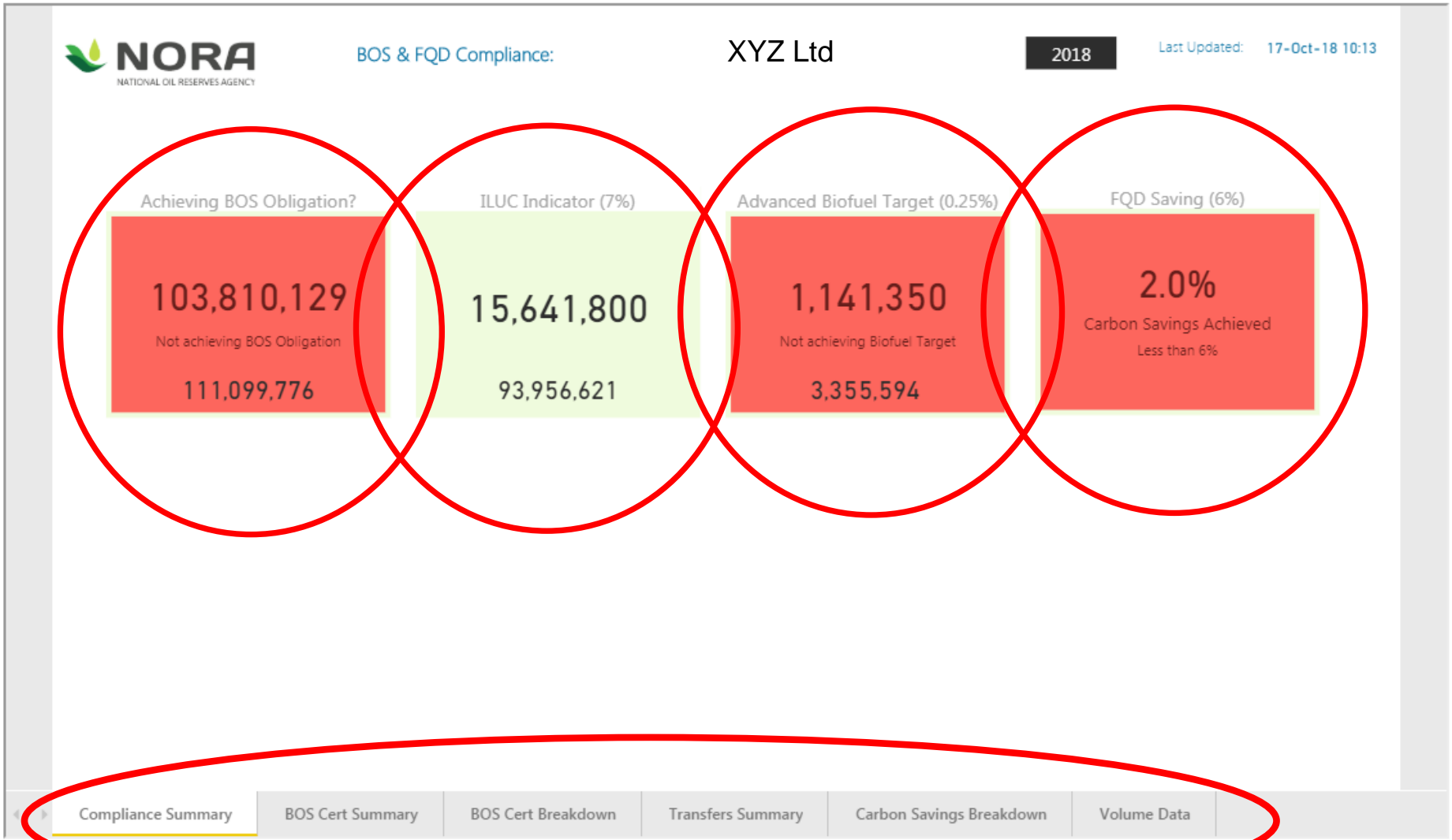


BOS  
Documentation



Deadline Dates

# Dashboard



# Dashboard

## BOS Cert Summary

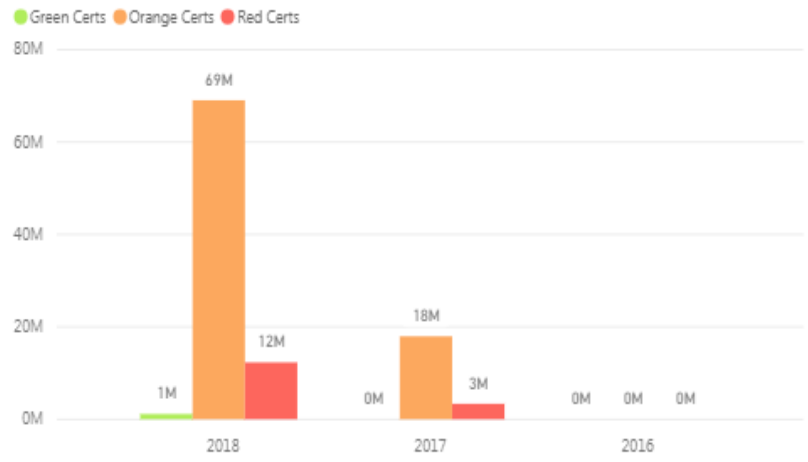
XYZ Ltd

Last Updated: 17-Oct-18 10:48

Summary of Certs Held by Type and Year

Year	Green Certs	Orange Certs	Red Certs	Total Certs Balance
2018	1,141,350	69,072,942	12,297,998	82,512,290
2017	0	17,954,037	3,343,802	21,297,839
2016	0	0	0	0
<b>Total</b>	<b>1,141,350</b>	<b>87,026,979</b>	<b>15,641,800</b>	<b>103,810,129</b>

Summary of Certs Held by Type and Year





82,512,290

Total Certs

1,141,350

Green Certs

69,072,942

Orange Certs

12,297,998

Red Certs

0

Carried Forward

82,512,290

Awarded

0

Transferred IN

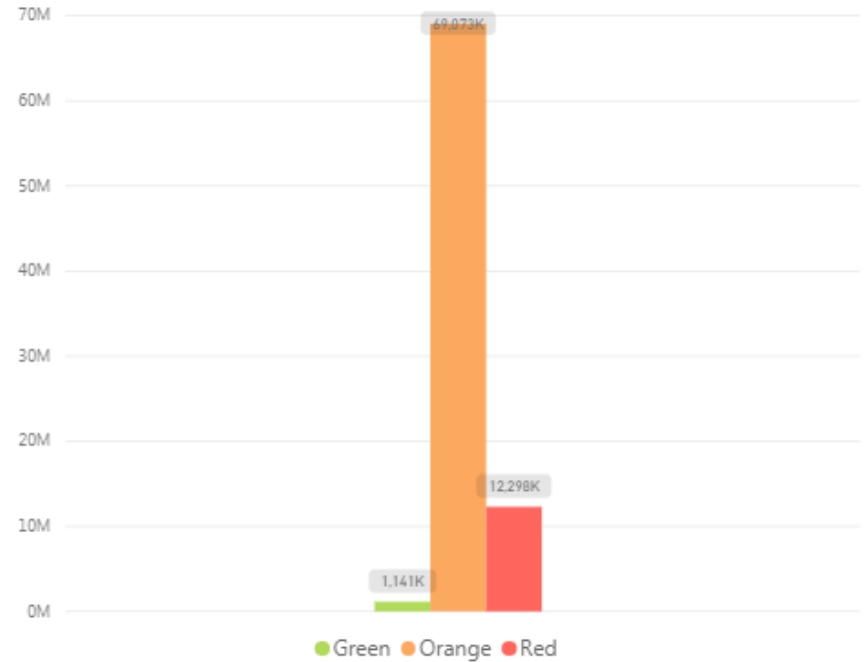
0

Transferred OUT

Carried Forward From Previous Year by Certificate Type



Certs Awarded by Certificate Type



Compliance Summary

BOS Cert Summary

BOS Cert Breakdown

Transfers Summary

Carbon Savings Breakdown

Volume Data

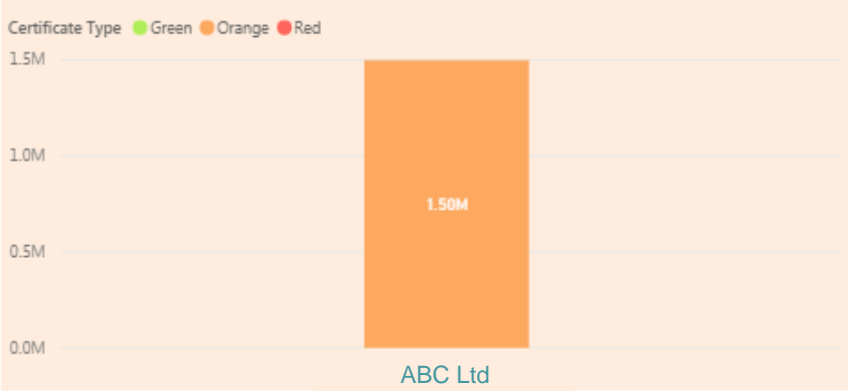
**1,500,000**  
Transferred OUT

**1,500,000**  
Transferred IN

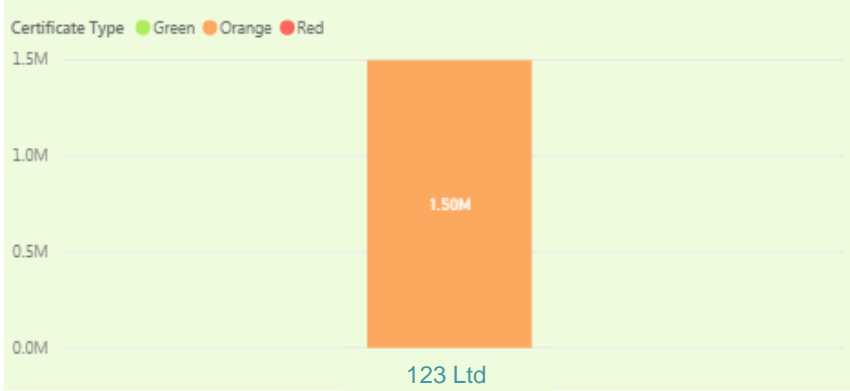
Certs Transferred	To	Transfer No	Year Applied
1,500,000	ABC Ltd	TC - 00041	2018

Certs Received	From	Transfer No	Year Applied
1,500,000	123 Ltd	TC - 00040	2018

Certs Transferred by Transferee and Certificate Type



Certs Received by the Account and Certificate Type

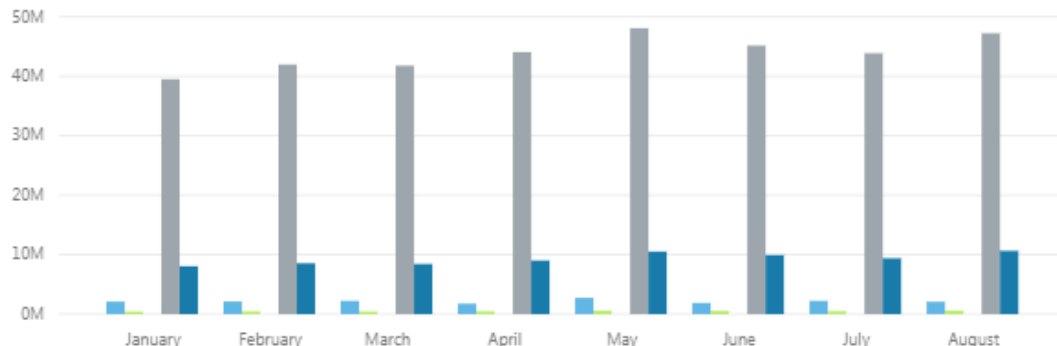




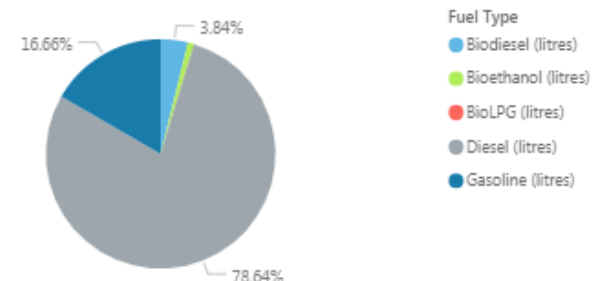
2013 2014 2015 2016 2017 **2018**

Fuel Quantity by Month and Fuel Type

Fuel Type ● Biodiesel (litres) ● Bioethanol (litres) ● BioLPG (litres) ● Diesel (litres) ● Gasoline (litres)



Fuels Value by Fuel Type



Month	Biodiesel (litres)	Bioethanol (litres)	BioLPG (litres)	Diesel (litres)	Gasoline (litres)
January	2,104,480	413,631	0	39,505,362	8,057,775
February	2,125,088	443,195	0	41,974,468	8,541,573
March	2,232,496	427,492	0	41,787,645	8,422,627
April	1,761,952	455,616	0	44,063,461	9,016,007
May	2,736,712	546,092	0	48,090,845	10,515,100
June	1,876,096	518,051	0	45,161,132	9,917,150
July	2,237,398	479,710	0	43,876,747	9,389,517
August	2,090,771	550,119	0	47,235,944	10,641,318
<b>Total</b>	<b>17,164,993</b>	<b>3,833,906</b>	<b>0</b>	<b>351,695,604</b>	<b>74,501,067</b>

## CARBON SAVINGS – FQD

- 6% reduction in ‘*life cycle greenhouse gas emissions per unit energy*’ in 2020 (Art. 7a)

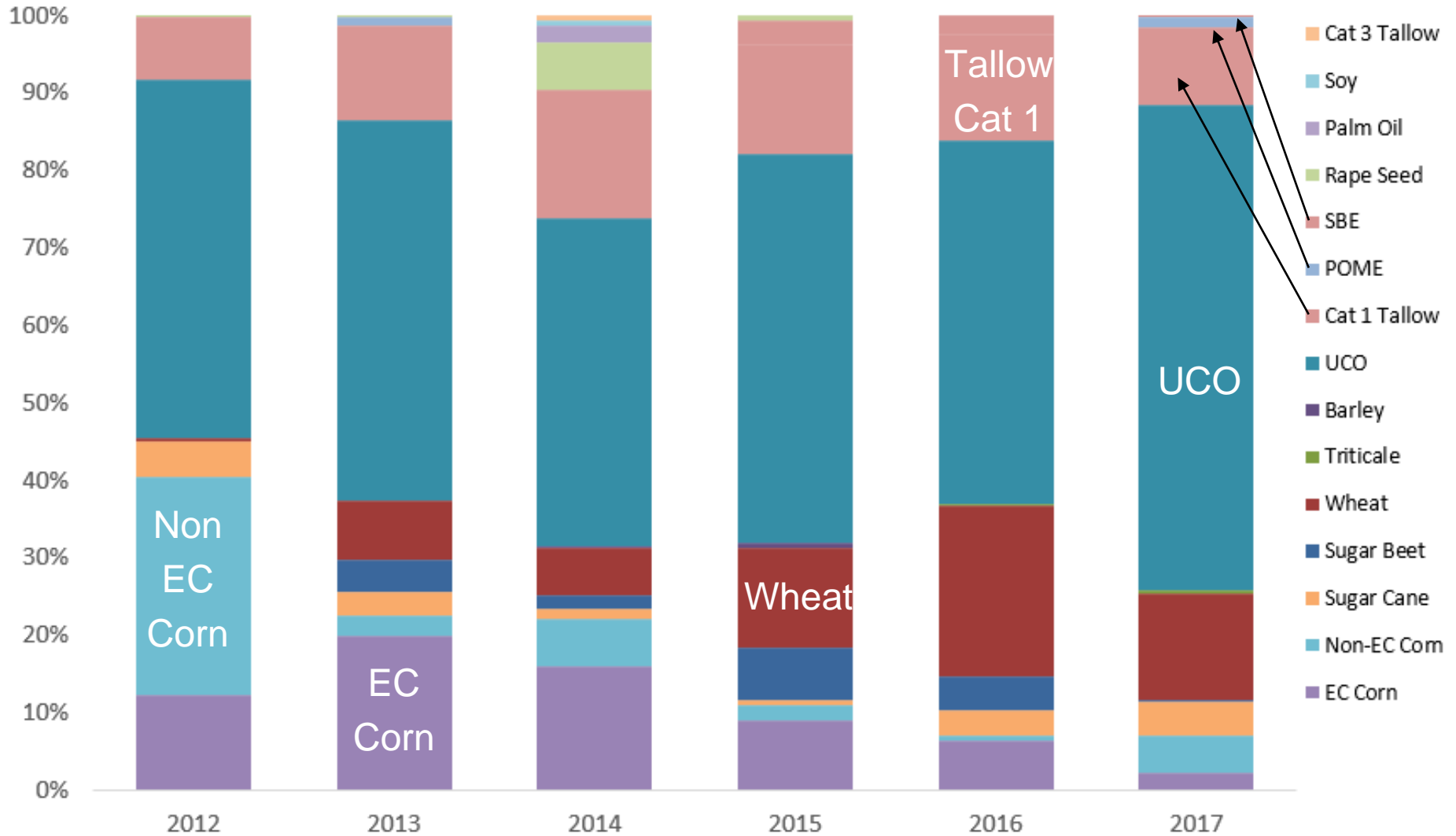
$$GHGi = \frac{GHG \text{ emission}}{Energy} [gCO_{2eq}/MJ]$$

- Reduce the GHGi of transport **fuel mix** by 6%
- How?
  - Biofuels (same sustainably criteria apply)
  - Electric vehicles
  - Upstream Emission Reductions (UERs)

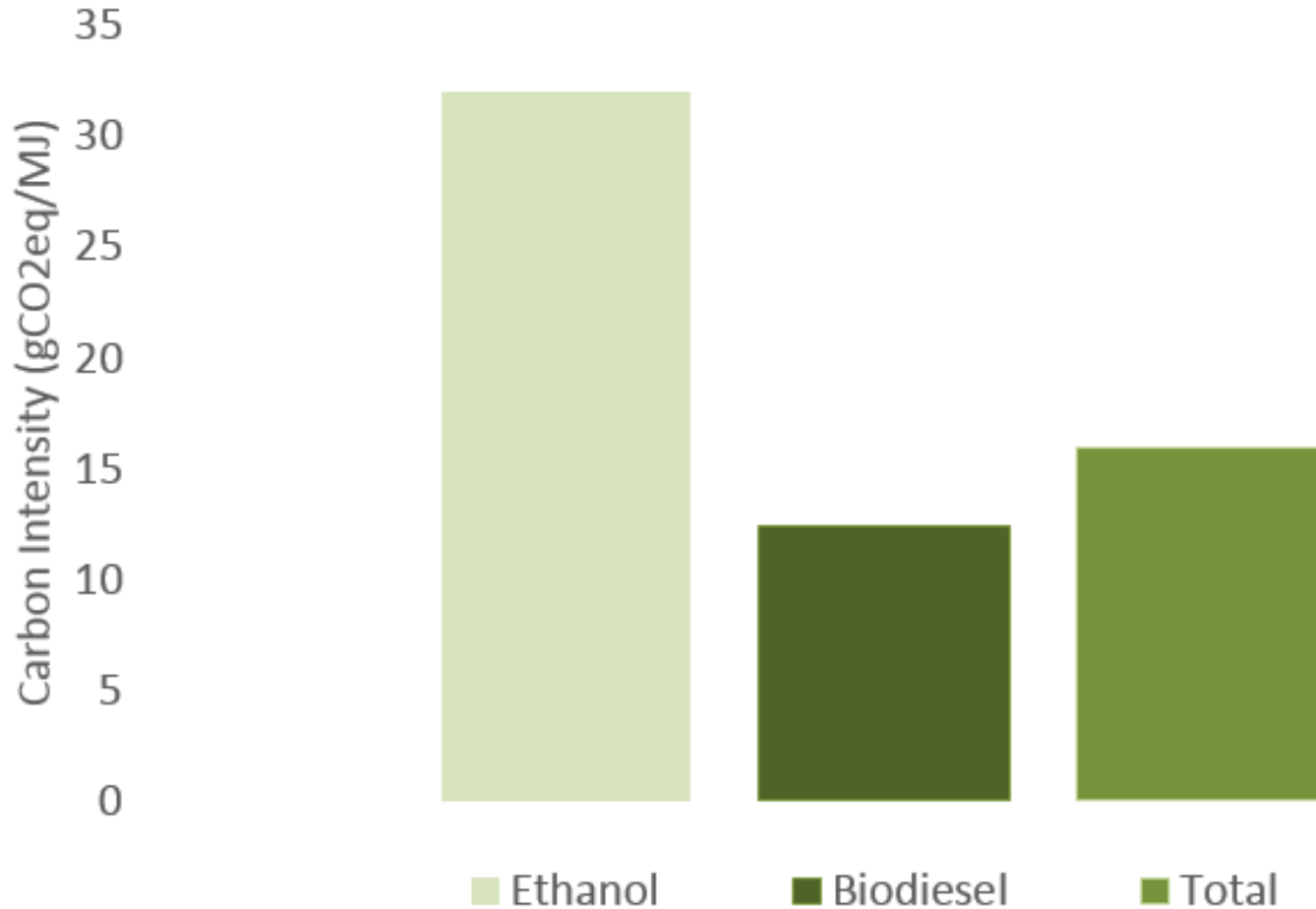
## FQD - RECAP

Fuel Type	GHG intensity (gCO <sub>2eq</sub> /MJ)	Reduction in GHGi
2010 baseline	94.1	-
<b>2020 target</b>	<b>88.5</b>	<b>6%</b>
<i>2017 'average' supplier</i>	<i>91.4</i>	<i>2.9%</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%

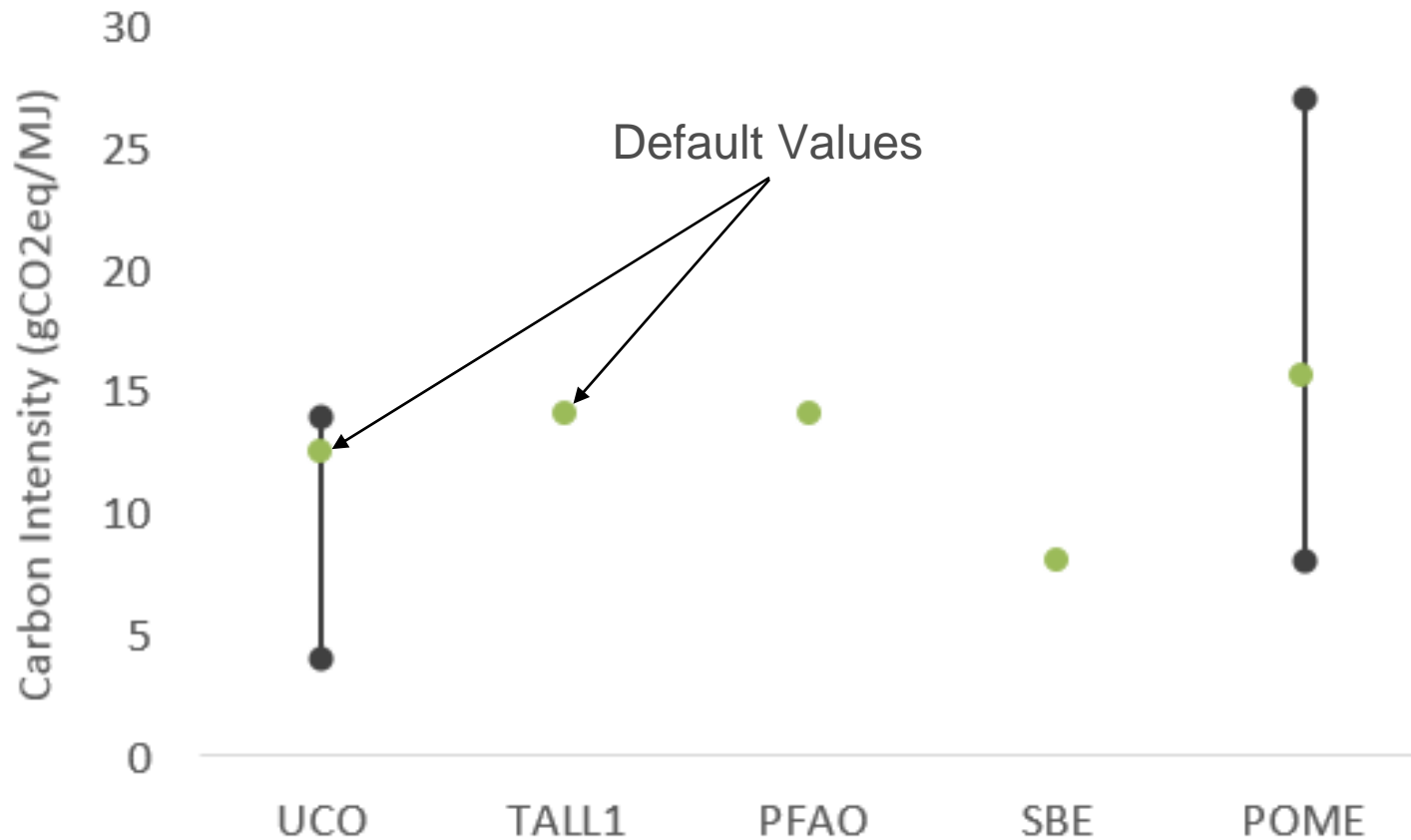
# RECONCILIATION 2017 – FEEDSTOCKS



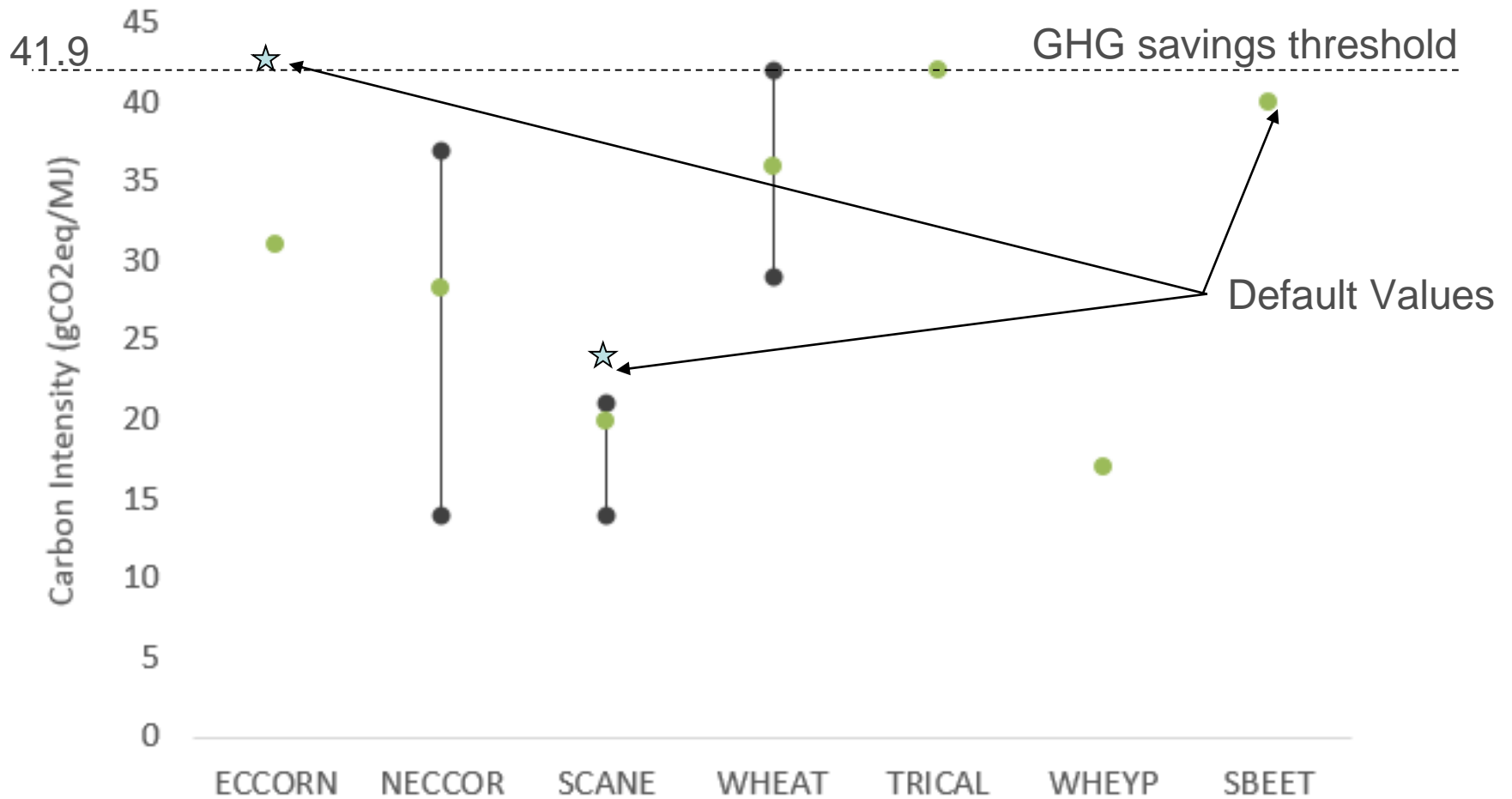
# RECONCILIATION 2017 – CARBON SAVINGS



# RECONCILIATION 2017 – CARBON INTENSITY BIODIESEL



# RECONCILIATION 2017 – CARBON INTENSITY BIOETHANOL



Savings Achieved (%)

**1.9%!**

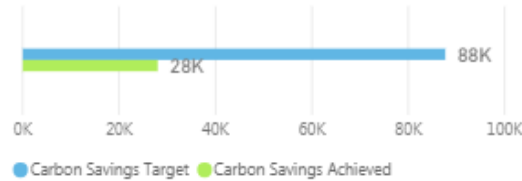
Goal: 6.00%

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 & Biof...

**0**

Carbon Transfers (tonnes CO2eq)

**0**

UERS (tonnes CO2eq)

**92.30**

Carbon Intensity (gCO2eq / MJ)

Biofuel Carbon Performance

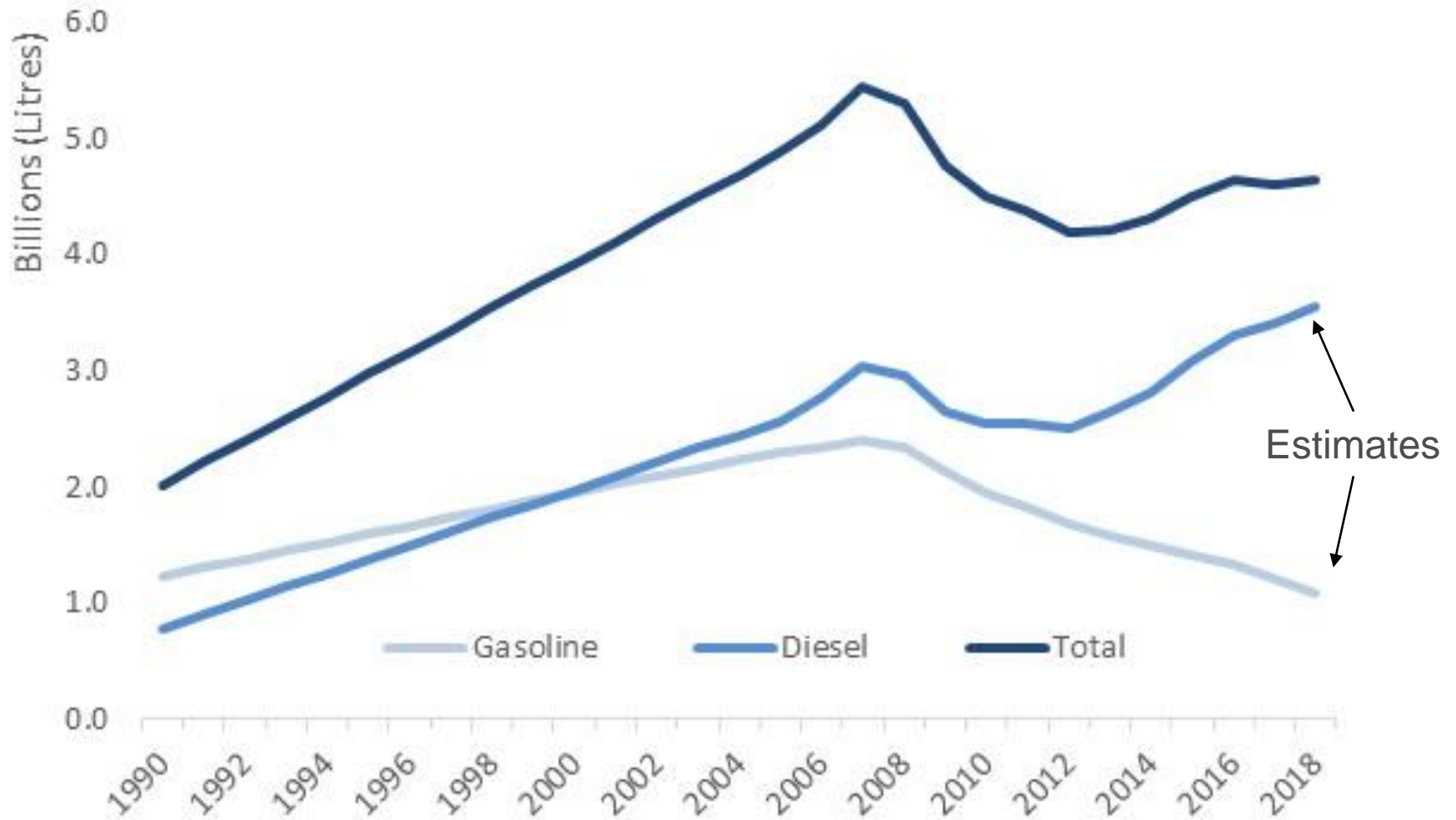
Fuel Type	Fuel Litres	Avg of Carbon Intensity (CO2eq/MJ)	Min of Lower Calorific Value (MJ/l)	Total Energy (MJ)	Total Carbon (tCO2eq)	Carbon Savings (tCO2eq)
<b>Biodiesel</b>	<b>12,836,828</b>	<b>10.80</b>	<b>33.00</b>	<b>423,615,324</b>	<b>4,575.71</b>	<b>35,286.50</b>
POME	1,076,881	16.14	33.00	35,537,073	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
<b>Bioethano</b>	<b>2,804,077</b>	<b>35.28</b>	<b>21.00</b>	<b>58,885,617</b>	<b>2,077.27</b>	<b>3,463.87</b>
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
<b>Total</b>	<b>15,640,905</b>	<b>13.79</b>	<b>21.00</b>	<b>482,500,941</b>	<b>6,652.97</b>	<b>38,750.37</b>

Fossil Fuel Carbon Performance

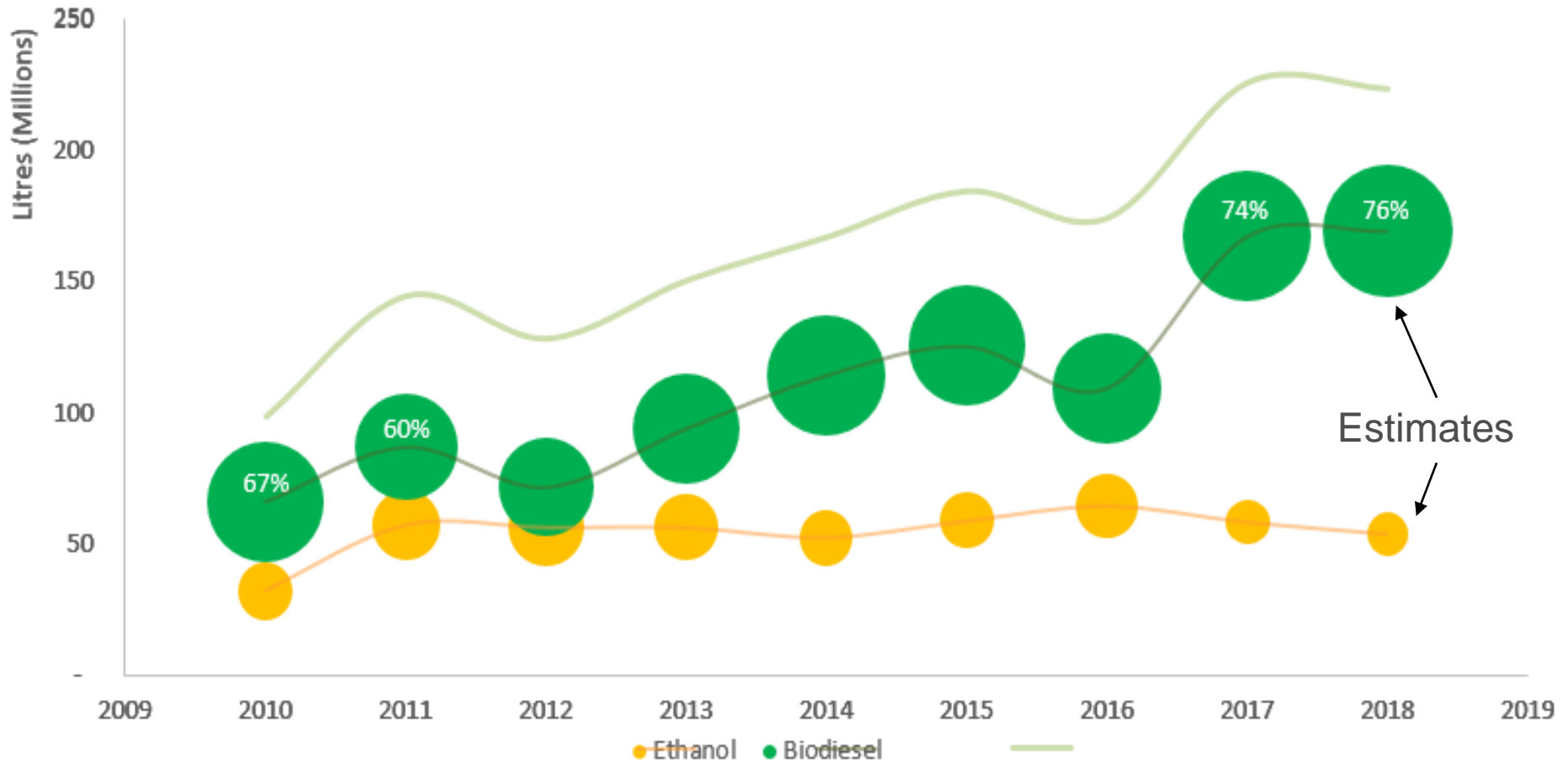
Fossil Fuels	Fuel Litres	Carbon Intensity (CO2eq/MJ)	Lower Calorific Value (MJ/l)	Total Energy (MJ)	Total Carbon (tCO2eq)	Carbon Savings (tCO2eq)
Diesel	351,695,604	95.1	36	12,661,041,744	1,204,065	-12,661
Gasoline	74,501,067	93.3	32	2,384,034,144	222,430	1,907
<b>Total</b>	<b>426,196,671</b>			<b>15,045,075,888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



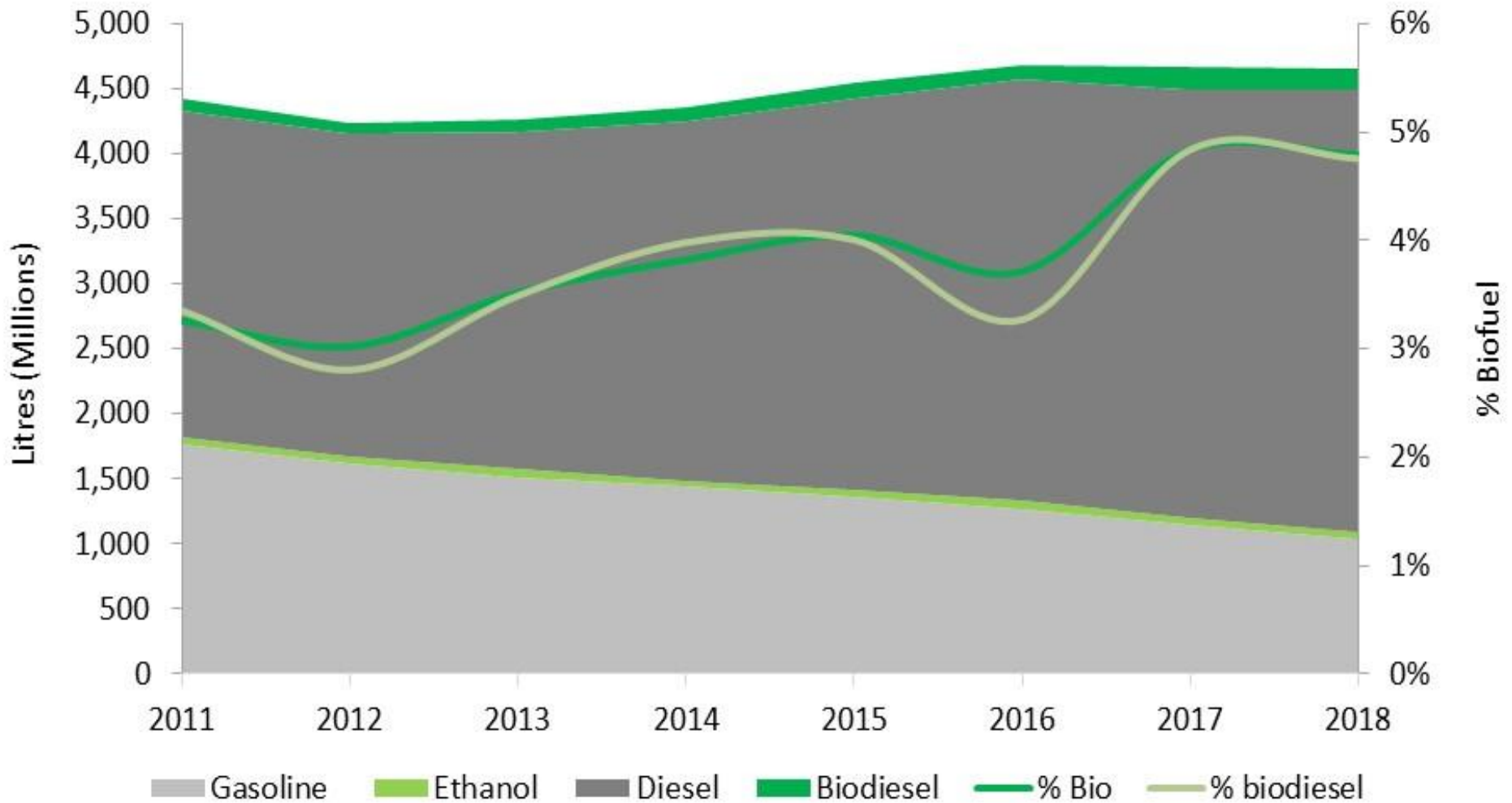
# FOSSIL FUEL CONSUMPTION



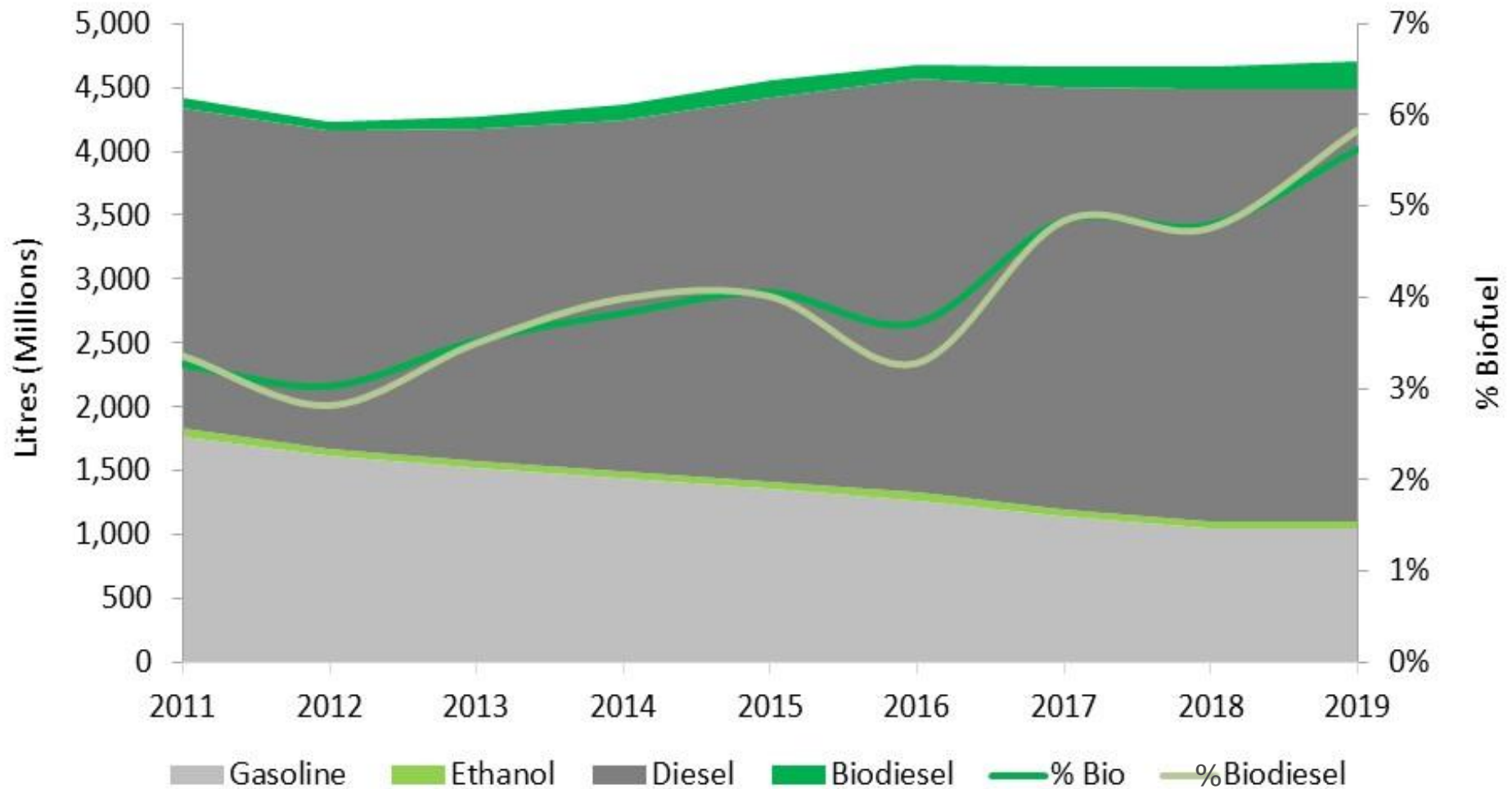
# RECONCILIATION OF 2017 PERIOD – BIOFUEL



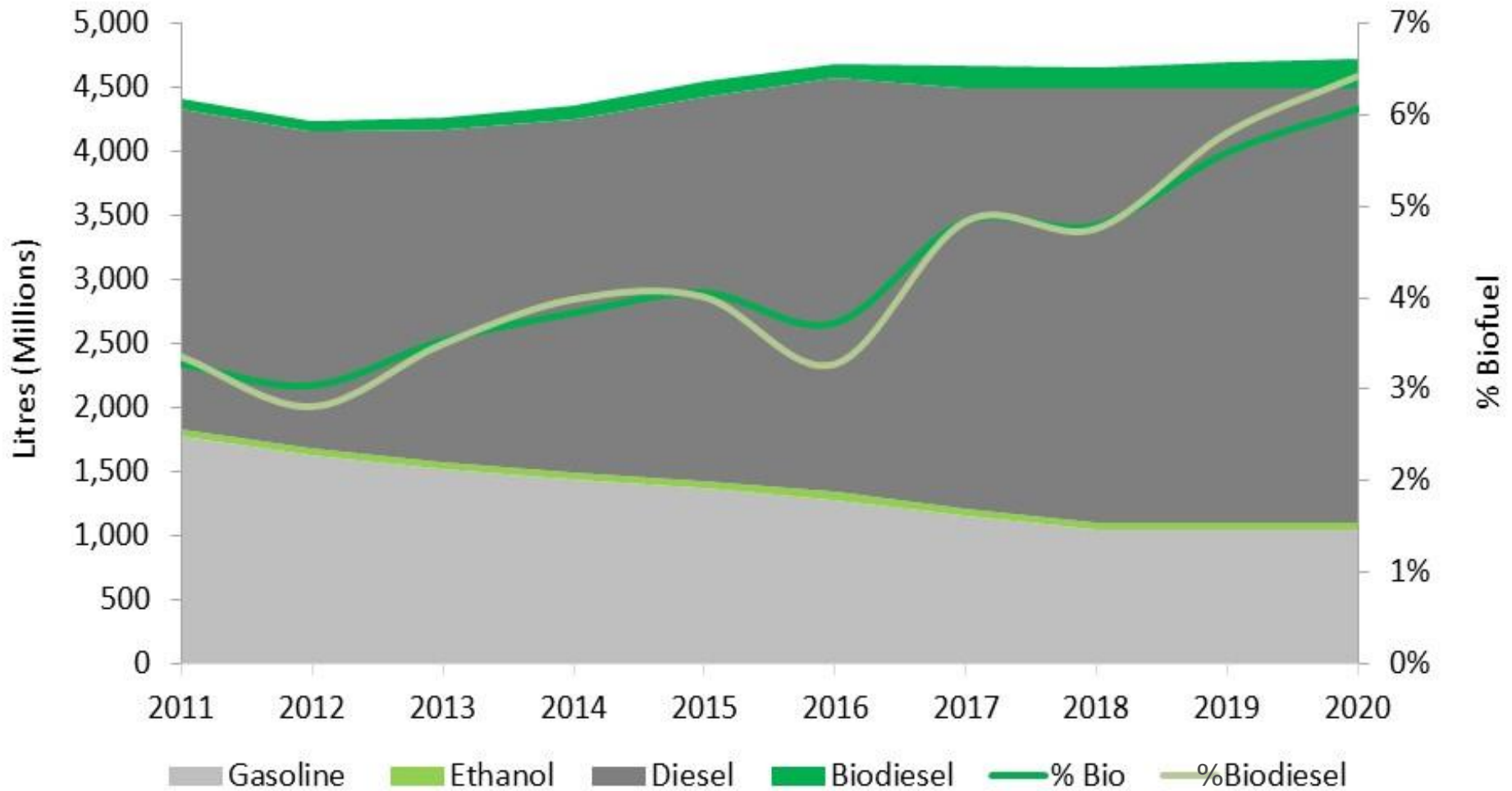
# ESTIMATE FOR 2018 PERIOD



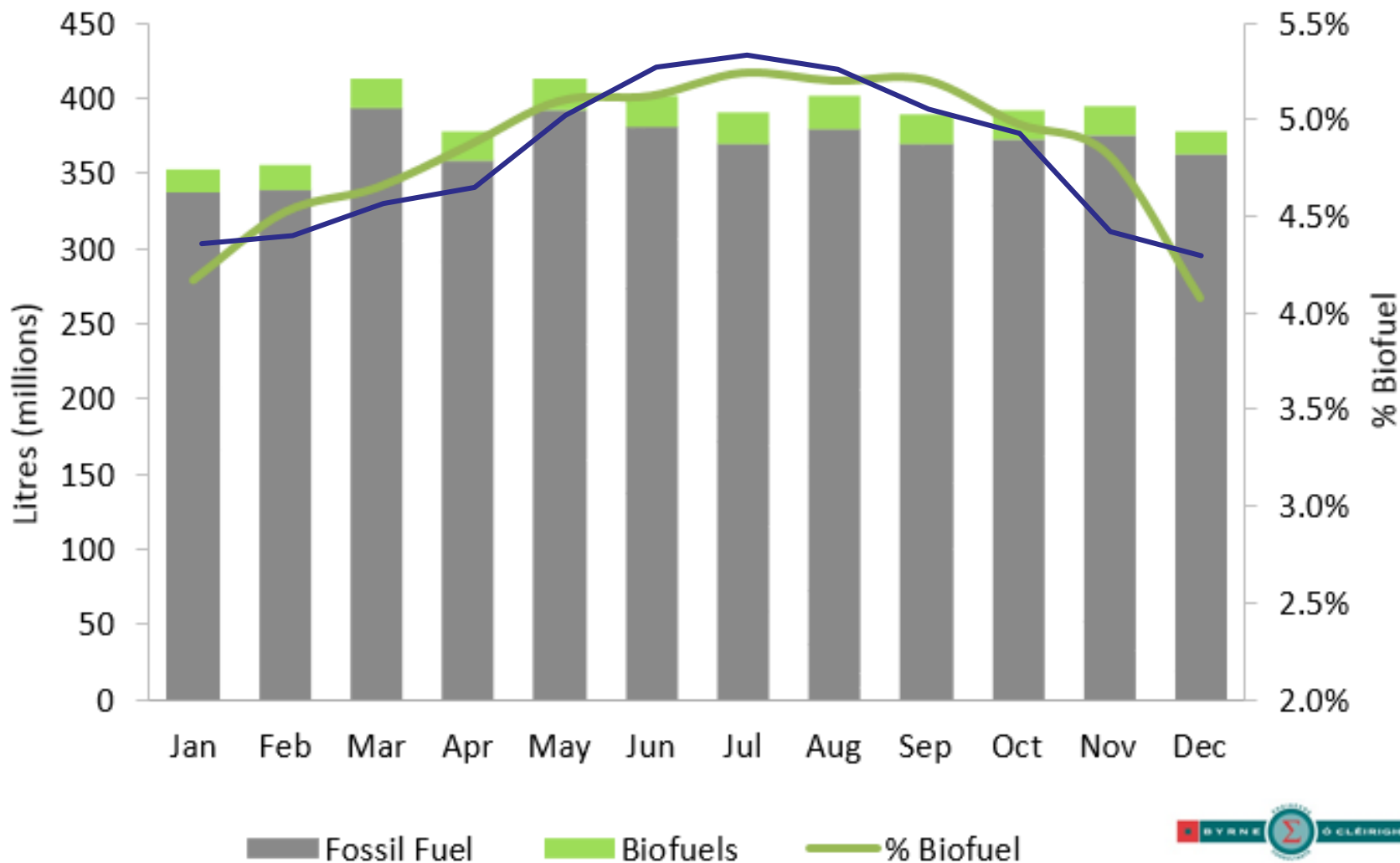
# ESTIMATE FOR 2019 PERIOD – MEETING 10%



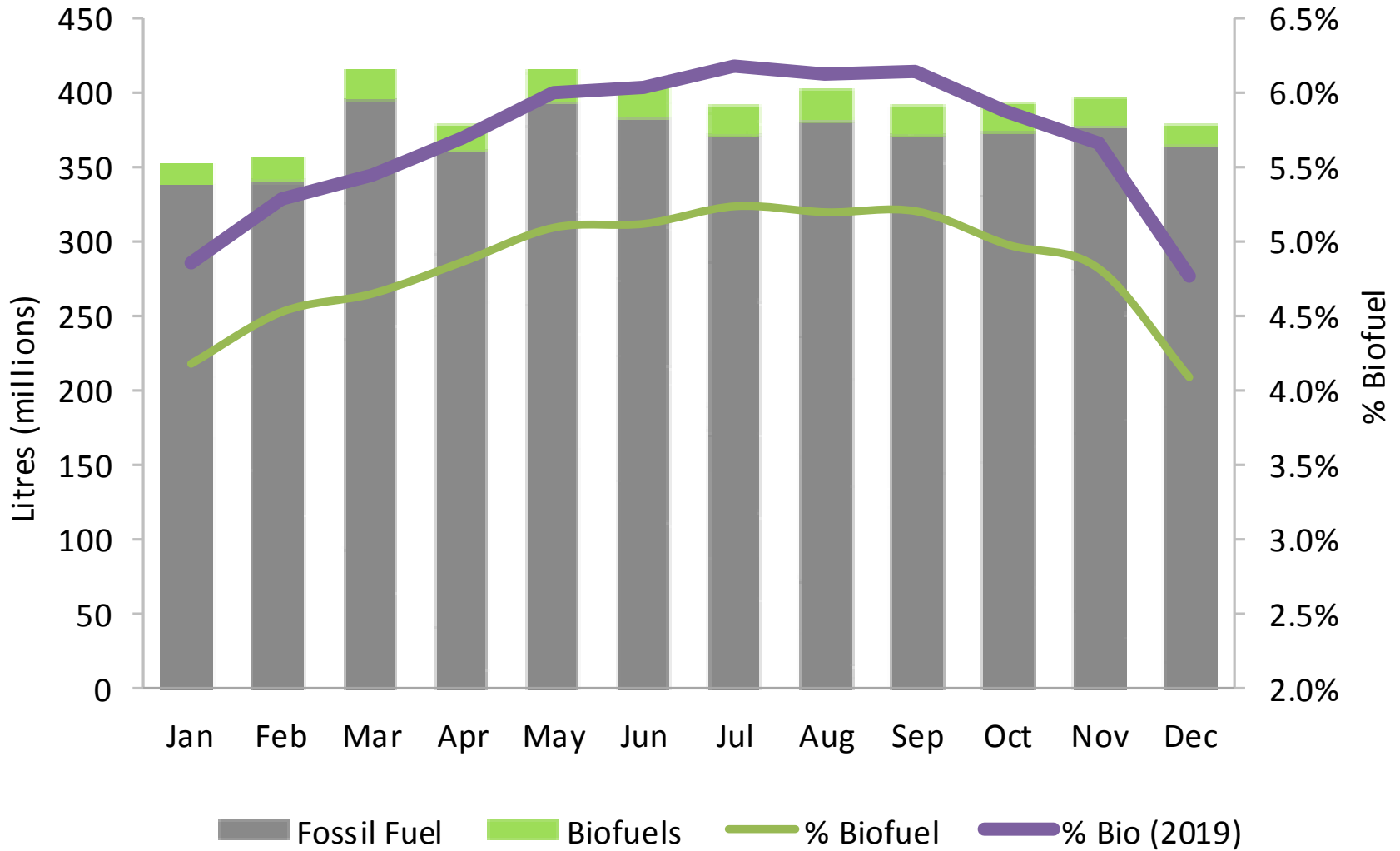
# ESTIMATE FOR 2020 PERIOD – MEETING 11%



# 2017 PERIOD – FOSSIL & BIO



# FORECAST 2019








## RED II

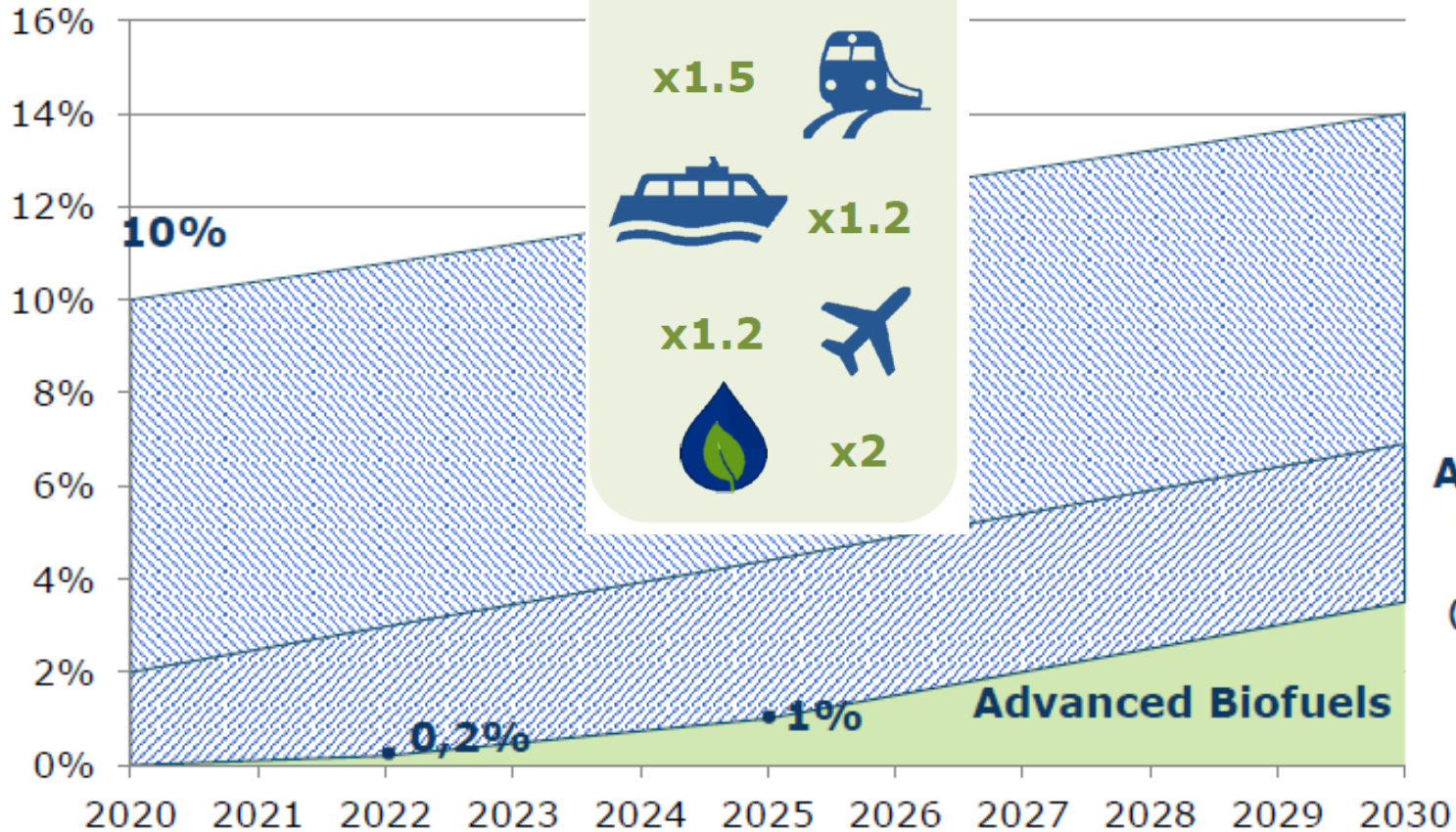
- The post-2020 regime will be dictated by RED II
- There will be a renewable energy target in transport for 2030: **14%**
- Sub-target for advanced biofuels (Annex IX Part A): 0.2% in 2022, 1% in 2025 and **3.5%** in 2030
- Annex IX Part B (UCO & Cat 1 Tallow) limited to 3.4%
- Caps on biofuels produced from agricultural feedstock
  - Food & feed based on 2020 level, plus 1%
  - High-risk ILUC based on 2020 level reducing to 0% by 2030
- Double counting is optional
- Multipliers for aviation, maritime, electricity in road & rail, advanced bio



# RED II

## Multipliers

-  **x4**
- x1.5** 
-  **x1.2**
- x1.2** 
-  **x2**



**14%**

**Annex IX Part B Limited to 3.4% (double counted)**

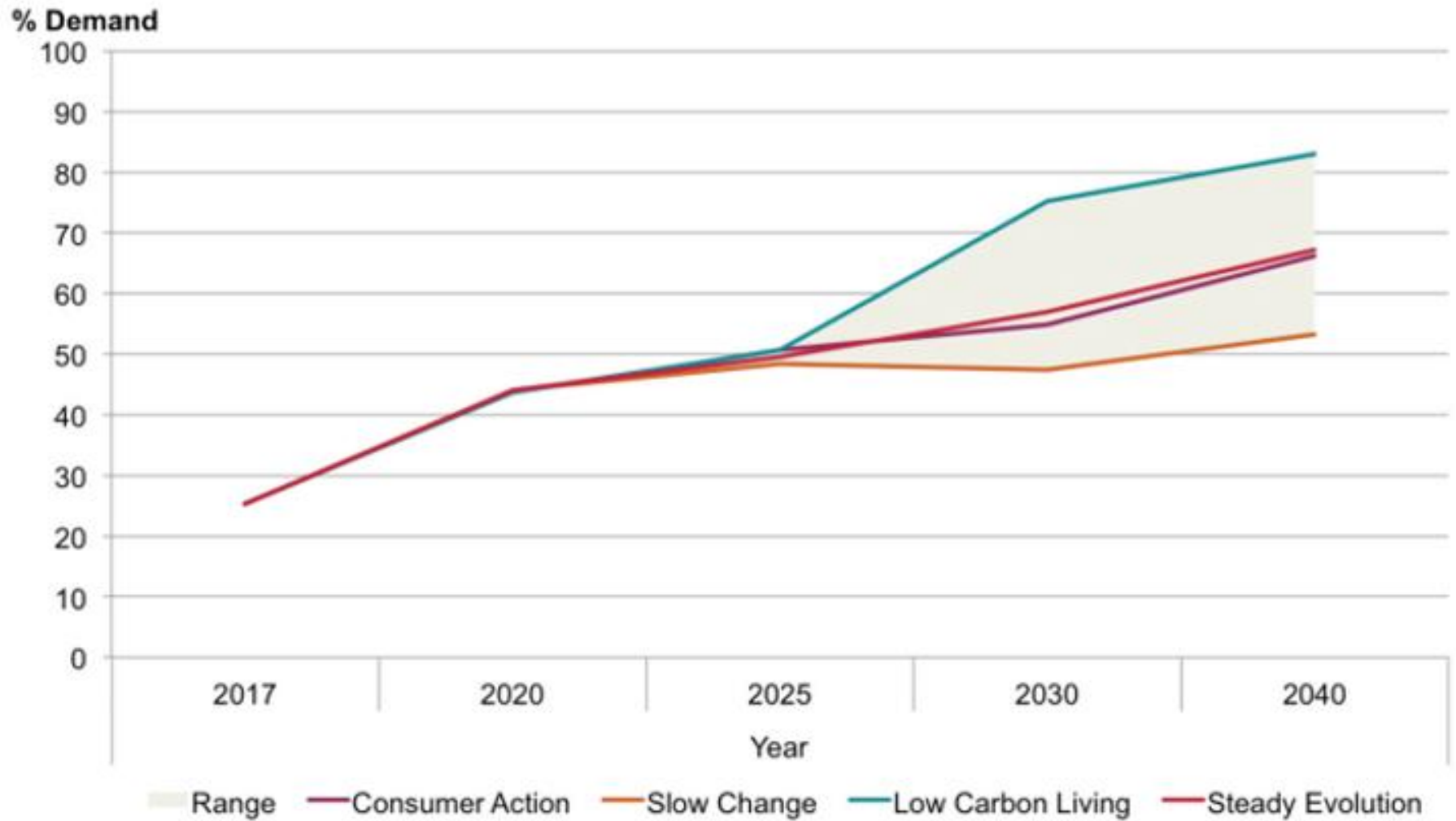
**3,5%**

## EV CONTRIBUTION – WIDE ESTIMATE

Variable	Pessimistic Value	Optimistic Value
No. of BEVs	48,000	336,000
No. of PHEVs	24,000	256,000
Average distance travelled (km)	10,000	24,300
Combustion efficiency (MJ/km)	1	0.4
Renewable energy penetration on grid	47%	75%
Renewable energy consumed (PJ)	0.3	3.5
Renewable energy count towards target (PJ)	1	14

# EV CONTRIBUTION – WIDE ESTIMATE

Variable	Pessimistic Value	Optimistic Value
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# DCCAE

# BIOMETHANE

# NEXT UP



-- Thank you for your attention --