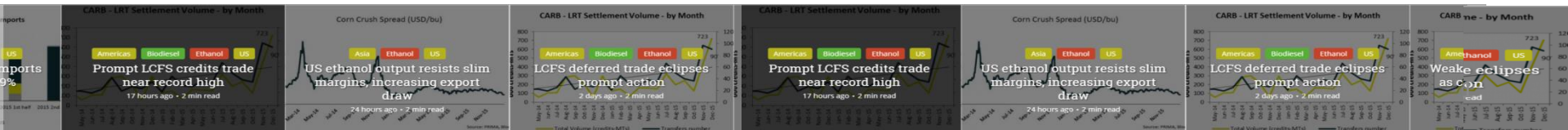


The International Waste Arbitrage

Shanghai: November 2017



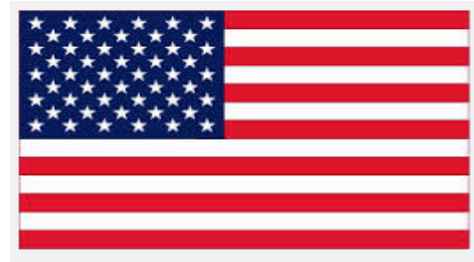
Waste fuel outlook 2018



Member states growing mandates to hit 10% 2020 RED target

ILUC directive caps crops at 7% by 2020, 3.8% 2030, driving demand rapidly towards wastes

GHG-counting is gaining ground, mandatory 2020



RFS struggling under Trump

Argentina anti-dumping leaves huge hole for domestic producers to fill – more demand for domestic waste

States joining California's low carbon fuel push

Substitution and economics add demand

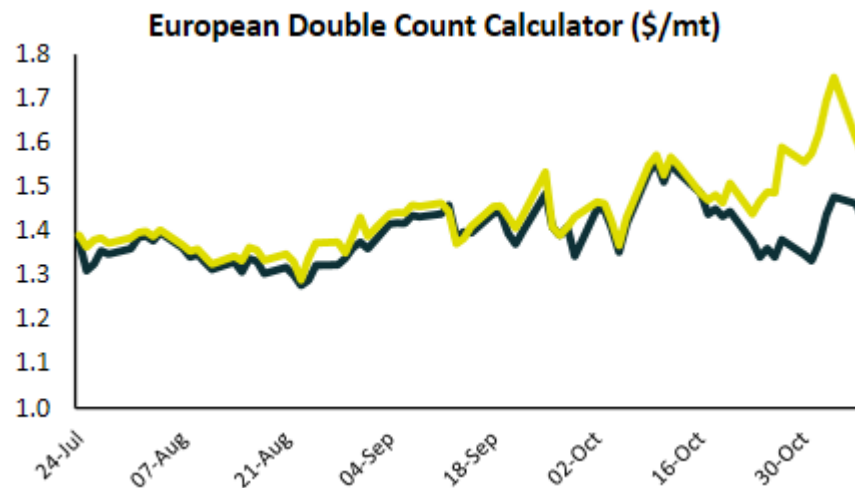
Palm's politics are poor



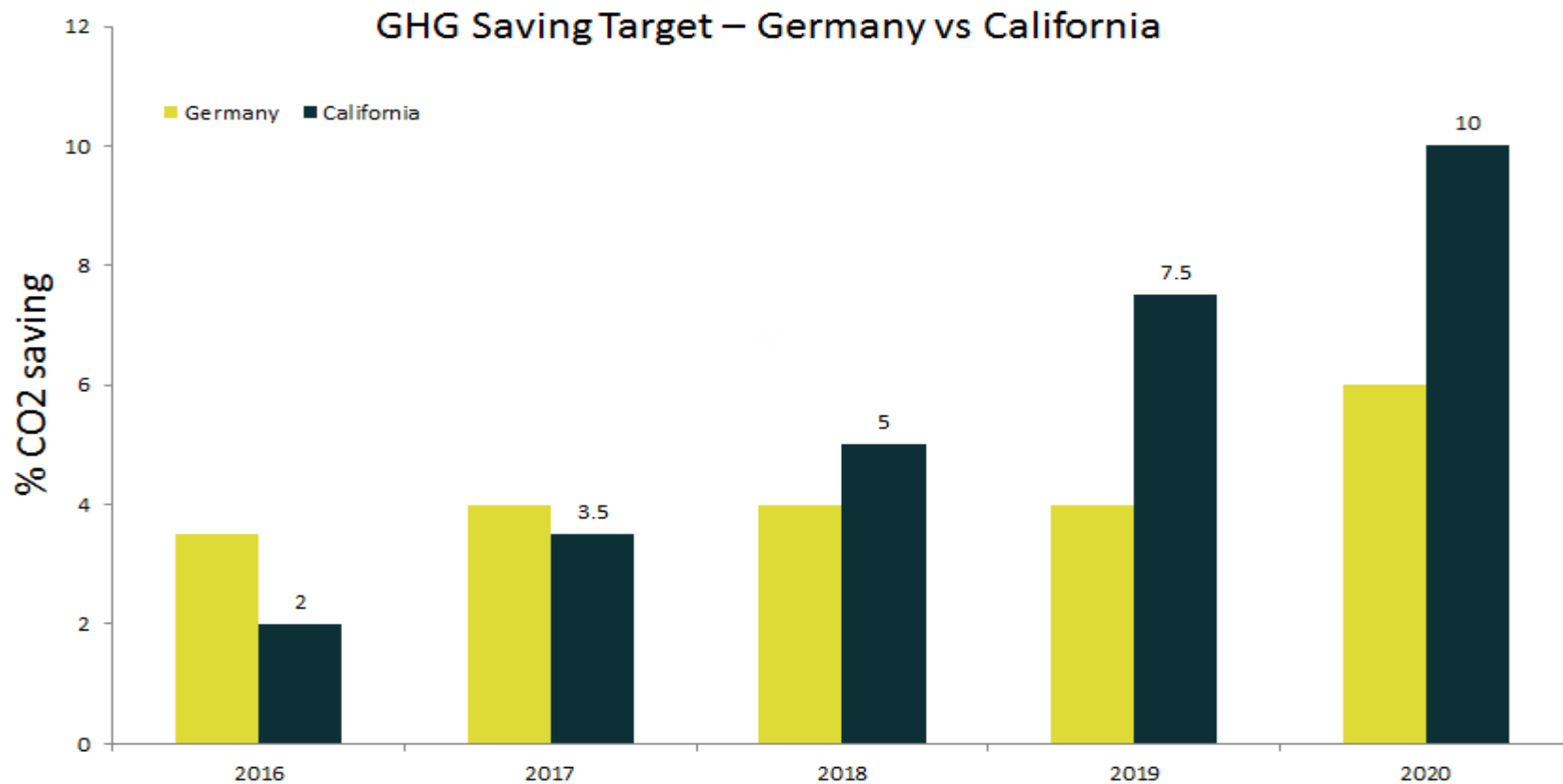
— Communiqué de presse —

Quel avenir pour la raffinerie de la Mède ?

Waste offers better economics

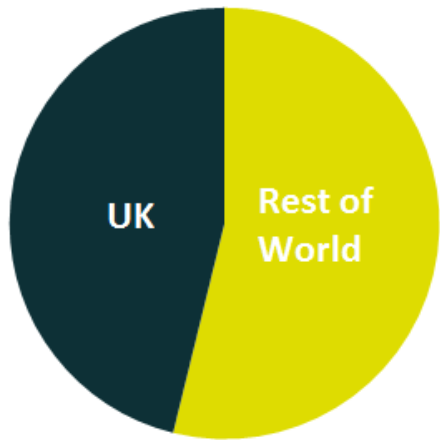


GHG-counting is spreading – paperwork follows

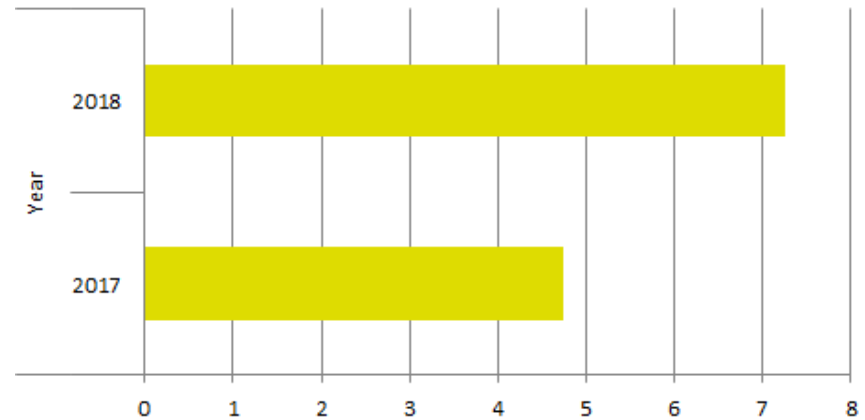


EU already runs on imports

UK UCO sources

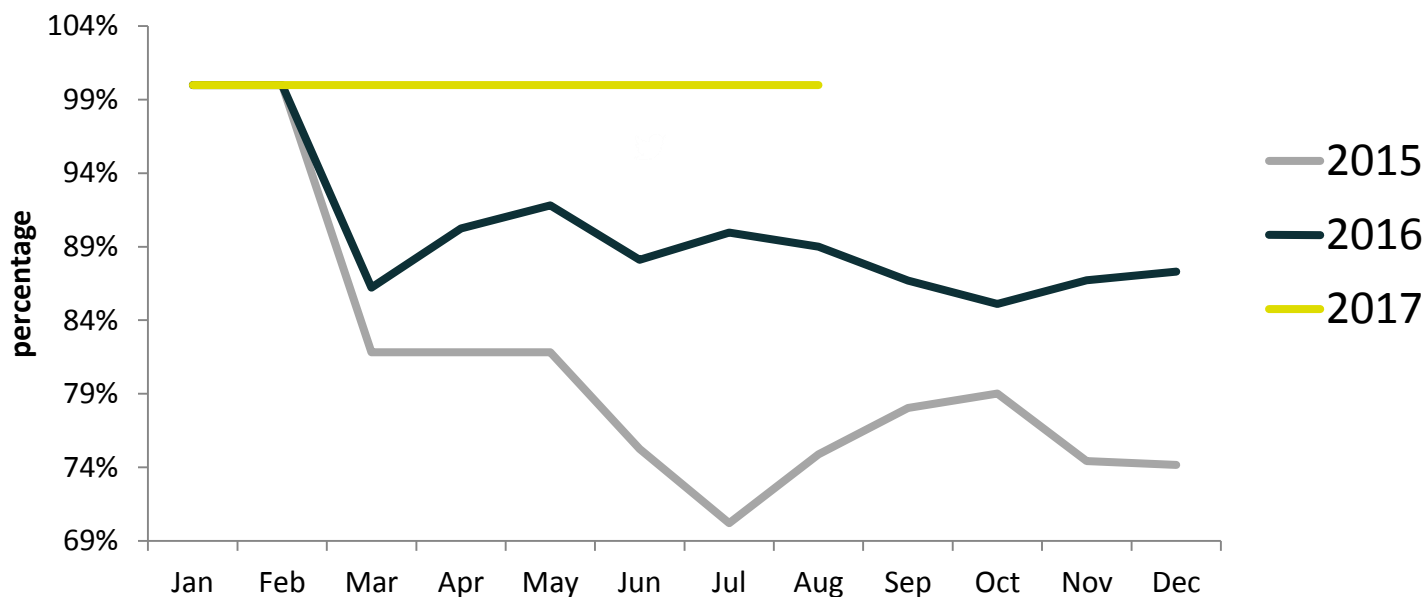


UK Mandate %



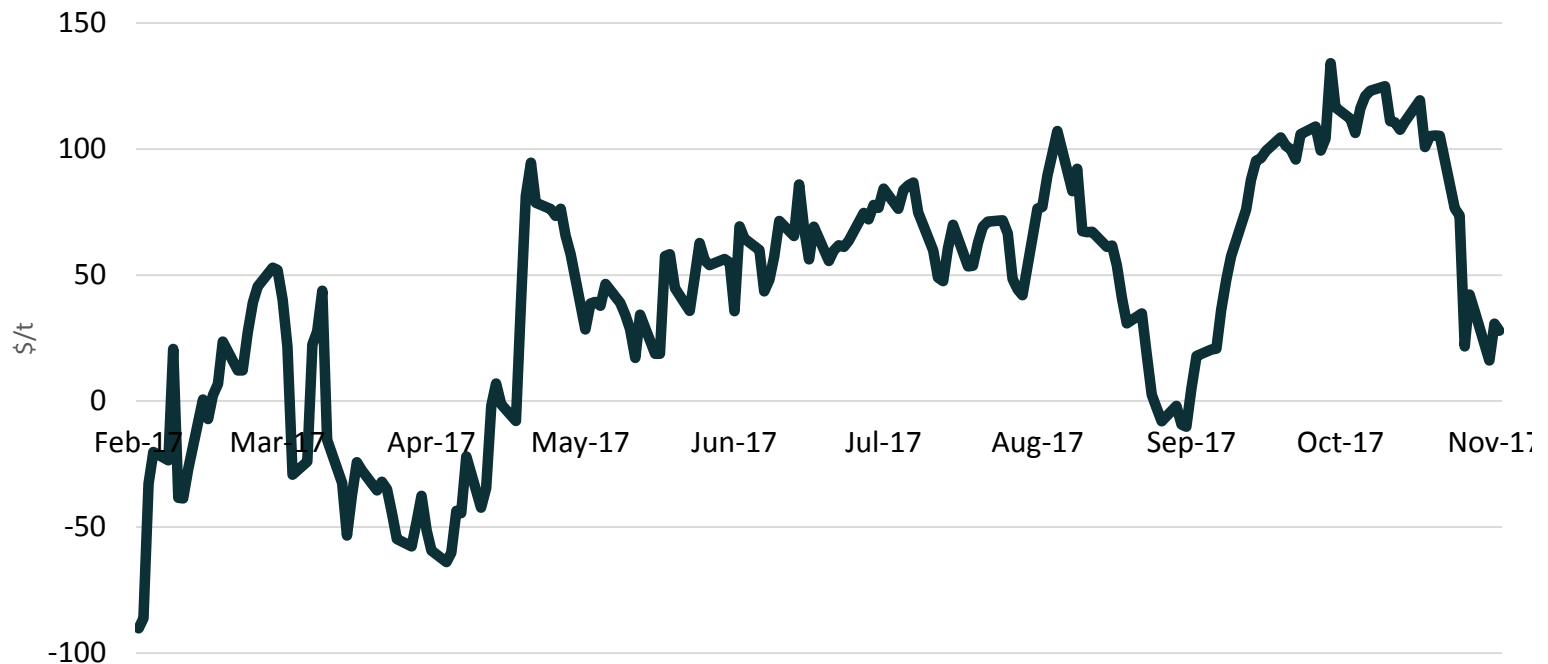
West Coast dominates US HVO imports

US Renewable diesel imports: CA vs all destinations



Where do I get the best price?

UCOME - EU ARA vs US LA spread



Negotiating international arbs



ISCC/RED sustainability certification

National qualifying requirements: UK, Germany, Sweden, Italy etc

Double count or GHG?

Buyer specification

UCOME/TME/Feedstock prices

Logistics



CARB LCFS pathway certification & sustainability

LCFS/Oregon prices & CI in cents/gal

RIN prices & D-code

Tax credits

UCOME/TME/Feedstock prices

Logistics

PRIMA tracks the global complex

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PRIMA

PRIMA Daily California LCFS Report

07 November 2017

LCFS prices rise following increased buy-side enthusiasm

PRIMA's California LCFS Index settled at \$98.25 Tuesday, up \$1.50 from the previous trading session alongside strengthened bid activity. PRIMA's LCFS assessed Index fell as the midpoint of the day's closing best-bid and ask indications of \$97.50 and \$99, without receiving confirmed transactional interests. A \$98.25 Index was tested during PRIMA's Discovery session, and was not disproven by either bid or ask-side positions. The strengthened Index follows robust buy-side activity, which saw confirmed bids steadily climb throughout the day to reach a daily high of \$97.50, the highest confirmed bid in a week.

The Oregon Environmental Quality Commission unanimously approved the 2017 proposed rulemaking package to the Oregon Clean Fuels Program (OCFP) on Friday. The rulemaking, which will take effect on 1 January 2018, will set up a Credit Clearance Market for the sale of surplus credits from parties regulated by the OCFP, create

| PRIMA California LCFS Index (\$/credit) | | | | | |
|---|-------|-------|------|-------|--------|
| Year | Bid | Ask | Mid | Index | ± Prev |
| 2017 | 97.50 | 99.00 | 98.3 | 98.25 | 1.50 |
| | | | | ±YOY | 7.75 |

Current Month-to-Date Averages:

| | |
|------------------|----------|
| January, 2017 | |
| February, 2017 | |
| March, 2017 | |
| Trades MtD (kt)* | Sep 2016 |
| Volume | 190kt+ |

*Trades include deals done in both OTC market

| PRIMA Oregon OCFP | | |
|-------------------|-------|-------|
| Year | Bid | Ask |
| 2016 | 47.00 | 50.00 |

Current Month-to-Date

PRIMA, 4th floor Ropemaker Place, 25 Ropemaker Street, London EC2Y 9LY, +44 207 064 6337

PRIMA

prima-markets.com

PRIMA Low Carbon Feeds & Fuels Report

07 November 2017

Brazil's RenovaBio nears commencement

European UCOME markets stayed subdued Tuesday in the wake of Monday's slide, absent any refreshed offers reported in either European UCOME or TME. With the European market under pressure from Argentinian SME imports coupled with weaker seasonal blending demand, California has moved back to a price premium to northwest European UCOME, a development likely to grab attention as the Asian waste industry congregates in Shanghai next week. More California LCFS accreditations are expected shortly among Asia's producer roster, developing optionality between the US and European markets for Asian suppliers. Offers continue to be shown for advanced biodiesel feedstock POME around 500USD/t FOB Indonesia, with small clip sizes a problem for shippers. US UCO prices weakened at the beginning of November, with delivered prices into Houston down nearly 6% WoW at 28.25c/lb. Prices in Southern California meanwhile average between 28.00-29.00 cents/lb, off slightly from the yearly high of 29.50-30.50 cents/lb recorded during late August. US yellow grease exports fell from 13,741t in August to 7,515t in September, with nearly 80% of this being shipped to the UK and Germany.

| Europe | | | |
|------------------------|--------|--------|-------|
| | €/mt | \$/mt | ±WoW |
| T2 RED EU UCO FOB ARA | 710.00 | 821.00 | -0.7% |
| T2 RED EU UCO FOB NWE | 710.00 | 821.00 | -0.7% |
| T2 EU Animal Fat Cat 3 | 570.00 | 661.50 | 0.0% |
| Rapeseed Oil | 835.00 | 965.25 | 0.5% |

| US & South America | | | |
|---------------------------|---------|--------|-------|
| | c/lb | \$/mt | ±WoW |
| UCO FOB California | 28.50 | 628.00 | -5.8% |
| UCO FOB Houston | £ 28.25 | 622.50 | -5.8% |
| Corn Oil FOB Iowa | 27.50 | 606.00 | 1.9% |
| CBOT Soybean Oil Futures | 34.73 | 766.50 | 0.1% |
| Soybean Oil FOB Argentina | 35.62 | 787.25 | -1.2% |

Stay on top with **PRIMA**

EU Biodiesel

US Biodiesel

Argentinian biodiesel

Veg Oils

International Ethanol

Asian Ethanol

California carbon

Monthly RIN Count

Contact: Patrick.Meister@Prima-Markets.com