



US mandates: Navigating Federal and State mandates

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PRIMA: Award Winning Biofuel Analytics

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PRIMA European Biodiesel Report
13 January 2013

EU trade adjusts to high premium environment

- China's currency devaluation following the country's recent stockmarket slide has put global vegetable oil markets back under pressure, capping their recent rally relative to the collapsing mineral oil complex. While off their highs, spreads still remain up around \$410/t to nearly erase any Wov gains after peaking near \$435/t on 12 January. Front month BOGO spreads peak at \$360/t before dropping back \$20/t, still around \$20/t higher than on 6 January. On timescale the BOGO spread remains near the strongest levels seen since February zero spreads, dropping February offers on the intergrade spread back below leaving March offers at \$80/t.
- Spot biodiesel markets have lagged the slippage in vegoil/gasoil or implied spot margins Wov amid signs of strong first quarter demand. Premiums have fallen back from levels approaching \$600/t, repriced oil have posted back into the \$500/t, up around \$100/t for April and May. Given strong premiums in requirements for traders opted to roll calendar 2016 requirements to requirements into smaller period parcels to from biodiesel derivatives.
- Current oilseed fundamentals for vegoils and gasoil amid a slew of trimmed its US 2015/2016 output. USD/consu: 1.5% mark-down.

likely elevated. USDA trimm. 2015-16 end stock projections this week

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US Weekly Fuel Data
13 Jan, 2016

US DOE Petroleum Status Report Summary for week ending 8 January, 2016

	This Week	Last Week	Change	% Change	1 Year Max	1 Year Min	1 Year Prior	5 Year Avg
Refinery Utilization (%)	91.2	91.3	-0.1	-0.1%	96.1	85.5	91.0	88.8
Crude Oil								
Production	9,227	92.5	-0.3	-0.3%	9,810	9,096	9,152	7,869
Stocks	482,558	482,324	234	0.0%	480,912	397,853	387,792	382,417
Ethanol								
Production	1,003	996	7	0.7%	1,000	978	978	915
Stocks	21,345	21,099	246	1.2%	21,302	20,220	20,220	19,151
Distillates								
Production	4,767	4,778	-11	-0.2%	5,278	4,613	4,723	4,723
Stocks	165,558	159,416	6,142	3.8%	165,554	124,958	124,958	124,957
Production	8,820	8,766	54	0.6%	10,248	8,708	8,708	8,740
Stocks	240,434	231,992	8,442	3.6%	240,432	212,774	212,774	212,774

DOE Stocks and Refinery Utilization vs Bloomberg Survey

	Actual Change	Bloomberg Survey	DOEs vs Bloomberg
Crude Oil Stocks	234	5,035	-2,801
Distillate Stocks	87	500	-413
Ethanol Stocks	246	1,125	-879
Refinery Utilization	0.30%	0.004	0.011

Crude Oil Production: 9,227 Mbb/d
Last week: 9,219
Change: 8

Crude Oil Stocks: 482,558 Mbbbl
Last week: 482,324
Change: 234

Ethanol Production: 1,003 Mbb/d
Last week: 996
Change: 7

Ethanol Stocks: 21,345 Mbbbl
Last week: 21,099
Change: 246

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Real time

Daily

Weekly

Bespoke

North American Mandates

	Federal	California	Oregon	Canada
Administration	EPA	CARB (California Air Resource Board)	DEQ (Oregon Department of Environmental Quality)	Provinces and Federal
GHG saving	50% threshold	Monetized by CI	Monetized by CI	Threshold/Monetized by CI
Feedstocks	Soy (50%) Tallow, yellow grease, white grease, corn oil (40%)	Tallow, corn oil, UCO	UCO, others developing	Canola, UCO
Waste import arb	Minimal incentive to import waste	High, state is short low-CI feed	High, but mandate is 5 years behind CA	Long UCO but immature mandates

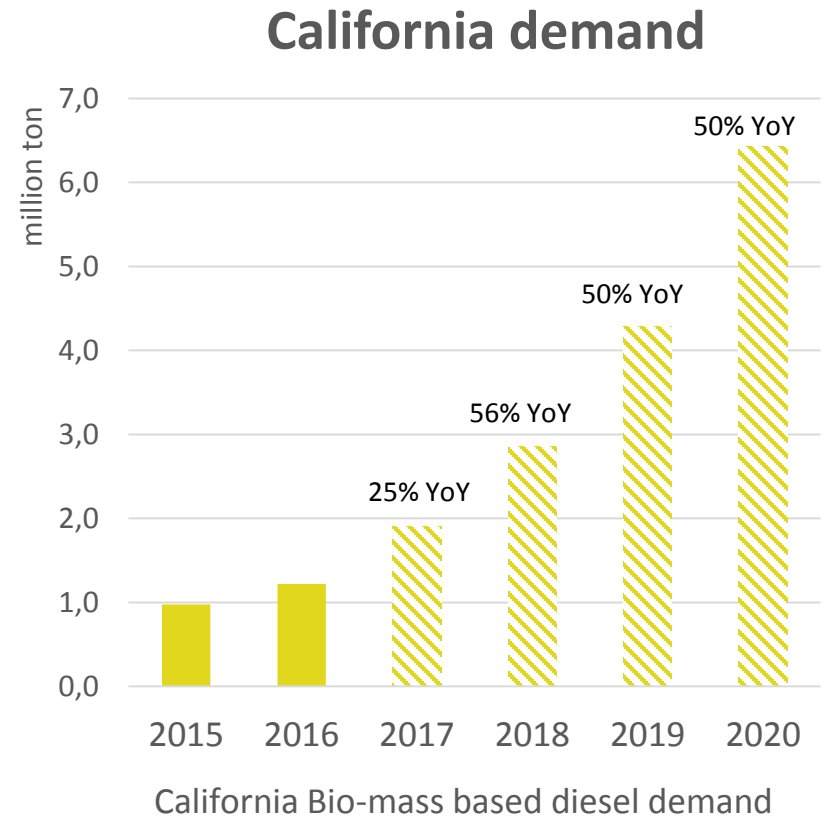
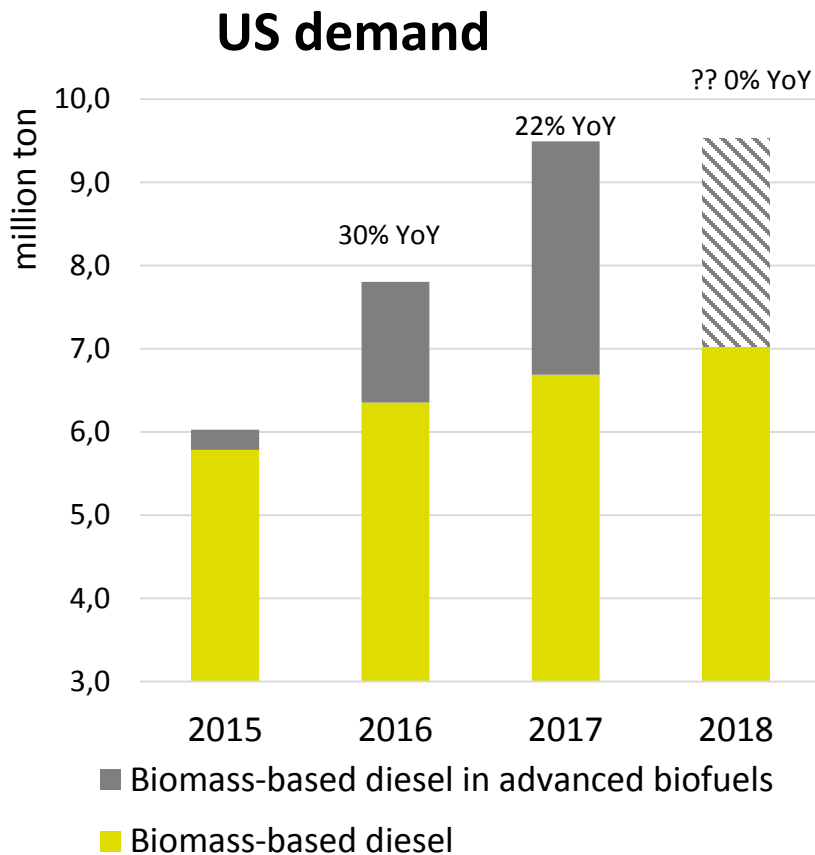
Source: PRIMA

Mandate recognition

- Regulatory recognition required to generate RINs (EPA) and LCFS (CARB).
- Importers need RINs & LCFS to maximize margin even if only selling to CA
- No importer system registration, no arb

	EPA	California
Methodology	GHG threshold for recognized pathways	Well-to-Wheel GREET 2 model
Paperwork	Light form filling	Data driven registration; sustainability systems under development

Flatlining Federal vs Golden State growth



California Pathway Snapshot

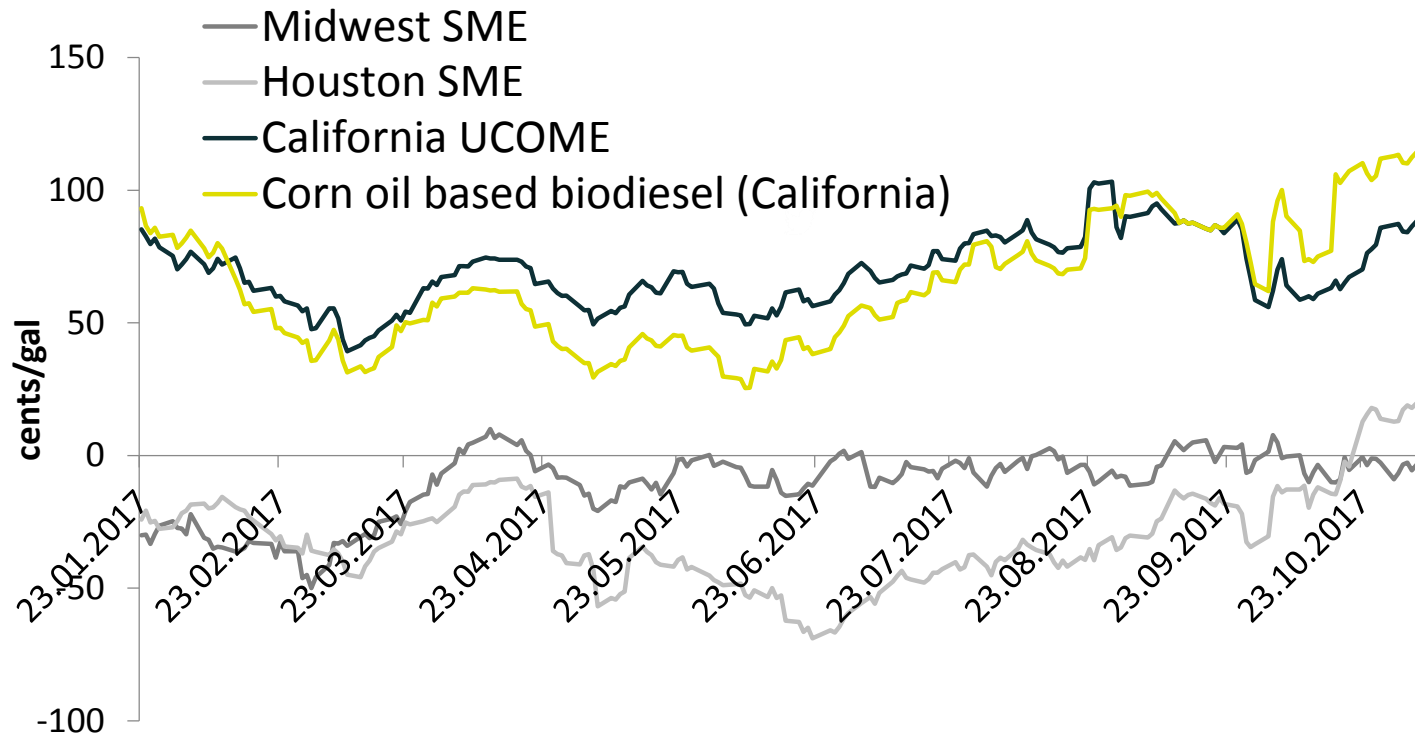
Appendix - CI Scores for new certified pathways

Ethanol	Avg. CI	Max. CI	Min. CI	Counts of Pathway
Brazil	42.90	46.52	32.82	21
Corn Stover	32.82	32.82	32.82	1
Molasses	44.22	46.52	38.30	14
Sugarcane	43.03	46.19	38.98	5
Sugar. Straw	33.82	33.82	33.82	1
California	61.10	80.51	22.06	26
Corn	62.53	72.73	53.49	15
Sorghum	67.34	80.51	30.63	9
Sugarcane	22.44	22.44	22.44	1
Waste Wine	22.06	22.06	22.06	1
Midwest	73.46	85.58	21.58	60
Corn	75.14	85.58	59.60	56
Corn Stover	21.58	21.58	21.58	1
Sorghum	77.06	79.28	74.83	2
Wheat Straw	24.20	24.20	24.20	1
Texas	75.37	84.64	67.60	7
Corn	71.71	78.02	67.60	4
Sorghum	80.24	84.64	77.05	3
All Brazil	42.90	46.52	32.82	21
All Domestic	70.15	85.58	21.58	93
Total	65.13	85.58	21.58	114

Bio-massed Diesel	Max. CI	Min. CI	Avg. CI	Counts of Pathway
California	54.97	16.31	30.95	12
Canola	54.97	54.97	54.97	1
Corn Oil	29.42	27.97	28.62	3
SBO	52.45	52.45	52.45	1
Tallow	32.34	28.45	30.07	4
UCO	23.28	16.31	19.26	3
Canada	52.25	20.38	36.32	2
Canola	52.25	52.25	52.25	1
UCO	20.38	20.38	20.38	1
MW	52.11	50.85	34.93	8
Canola	52.11	52.11	52.11	1
Corn Oil	38.67	38.67	38.67	1
SBO	50.85	50.85	50.85	1
Tallow	40.95	35.57	38.26	2
UCO	27.94	24.36	26.15	2
Singapore	37.39	16.89	31.26	7
Corn Oil	37.39	37.39	37.39	1
Fish Oil	33.08	33.08	33.08	1
Tallow	36.83	34.19	35.28	3
UCO	25.61	16.89	21.25	2
Spain	26.83	21.77	23.59	3
UCO	26.83	21.77	23.59	3
Total	54.97	9.00	31.66	31

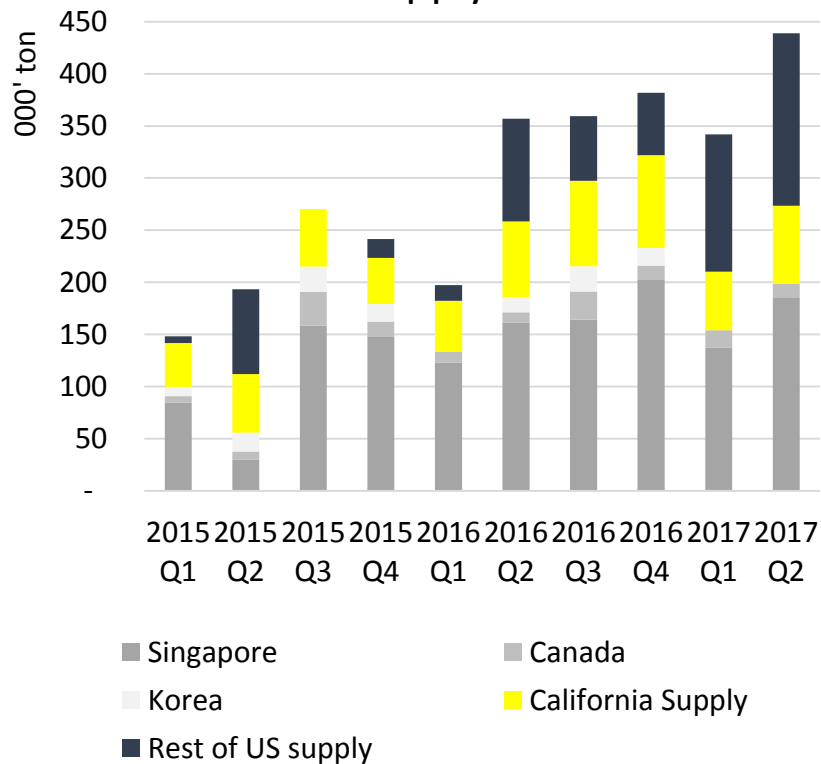
California margins smash Federal

Biodiesel Production Margin

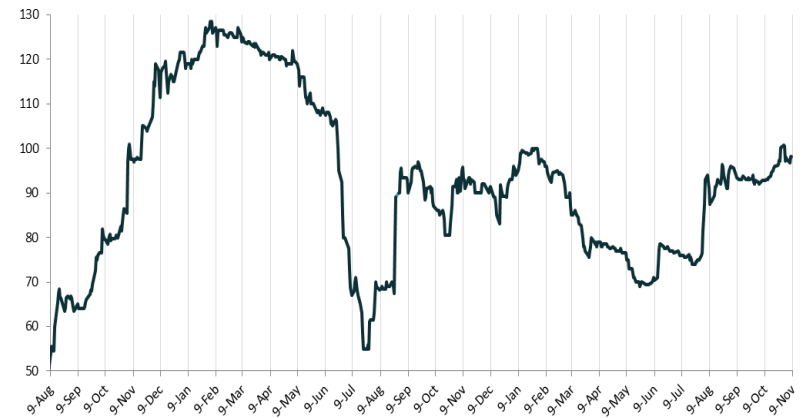


California needs more feed!

California Bio-mass based diesel supply



LCFS price history \$/t



Stay on top with **PRIMA**

EU Biodiesel

US Biodiesel

Argentinian biodiesel

Veg Oils

International Ethanol

Asian Ethanol

California LCFS

Monthly RIN Count

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