

Argus US Products

OVERVIEW

■ June Nymex light sweet crude futures rose by 91¢/bl to settle at \$64.49/bl on optimism about stronger global demand outlooks, despite rising Covid-19 infections and declining imports in India. Nymex RBOB rose by 2.52¢/USG to \$2.1015/USG and Nymex ULSD increased by 2.95¢/USG to \$1.9519/USG.

The Argus Renewable Volume Obligation (RVO) hit a new record high, increasing by 0.62¢/USG to 18.62¢/USG.

Gasoline prices in the US Gulf coast rebounded on the back of a stronger Nymex RBOB basis, effectively erasing Friday's losses.

Arbitrage opportunities to ship diesel and jet fuel into the New York Harbor region from the US Gulf coast remained mostly unappealing on paper

US midcontinent gasoline cash differentials softened amid gains in the underlying Nymex benchmark.

US Gulf coast diesel and jet fuel prices regained most of the previous week's price losses as ULSD Nymex futures rebounded against mixed differentials.

Rising gasoline demand boosted US Atlantic coast gasoline cash differentials.

Contents

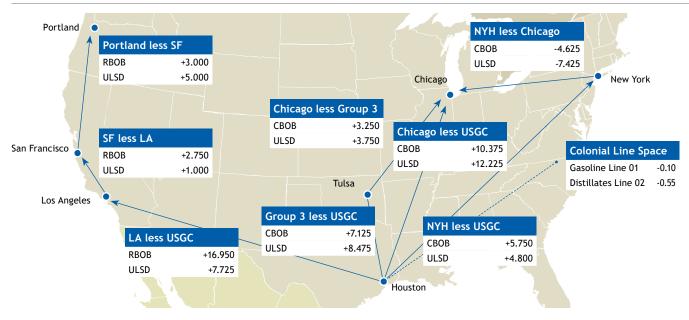
Gasoline	3
Distillates	7
Biofuels and blending components	12
Feedstocks and residual fuel oil	16
Latest news	20
Announcements	27

MARKET SUMMARY

Price				¢/USG
	New York	Houston	Chicago	Los Angeles
CBOB/suboctane	207.150	197.525	207.900	222.400
RBOB	209.525	205.450	215.150	222.400
87 conv	209.525	204.275	207.900	
Ethanol	246.125	243.900	234.000	263.750
Jet fuel	177.065	171.190	183.190	179.190
ULSD	195.265	190.465	202.690	198.190
Bunker fuel \$/t	388.500	390.000		423.000
Differential to Nyn	nex			¢/USG
	New York	Houston	Chicago	Los Angeles
CBOB/suboctane	-3.000	-12.625	-2.250	+12.250
RBOB	-0.625	-4.700	+5.000	+12.250
87 conv	-0.625	-5.875	-2.250	
Jet fuel	-18.125	-24.000	-12.000	-16.000
ULSD	+0.075	-4.725	+7.500	+3.000
Bunker fuel \$/t	-2.984	-2.747		+2.477
Change on day				¢/USG
	New York	Houston	Chicago	Los Angeles
CBOB/suboctane	+3.020	+2.520	+2.270	+2.270
RBOB	+2.895	+2.945	+1.770	+2.270
87 conv	+3.520	+3.270	+2.270	
Ethanol	+5.000	+3.000	+3.000	+3.000
Jet fuel	+1.575	+1.700	+2.950	+1.450
ULSD	+3.150	+2.975	+2.950	+3.200
Bunker fuel \$/t	-20.500	-2.000		+3.000
CME Nymex future	?S			¢/USG
Month		RBOB		ULSD
Jun		210.15		195.19
Jul		209.21		195.37
Aug		206.97		195.56
Sep		203.79		195.94
•				
Oct		189.99		196.22
Oct Nov		189.99 186.00		196.22 196.39

ARGUS MARKET MAP





LATEST NEWS

PAGE 20

Infrastructure

- ExxonMobil locks out Beaumont union workers
- Marathon Galveston Bay has hydrotreater upset

Industry

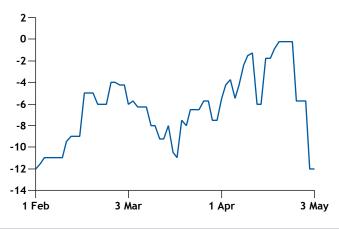
- US Gulf coast product exports recover
- Drop last-minute fuel mandate waivers: EPA
- RIN gains push RVO to new all-time high
- Colonial IHT incentives extended through 2021
- California GHG bills at 'critical juncture'
- California focuses on new climate initiatives
- US biodiesel capacity falls, RD imports jump

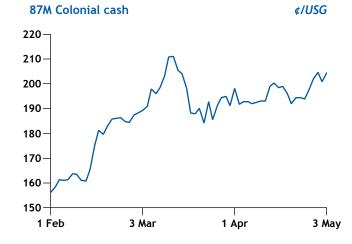


Chicago jet fuel vs Nymex



¢/USG





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Atlantic coast

US Atlantic coast gasoline cash differentials mostly increased on Monday as more bids emerged.

Prompt RBOB was assessed at June Nymex $-0.75 \notin/USG$ to $-0.5 \notin/USG$, a $0.38 \notin/USG$ gain from the last session. Buckeyes were even to barges. The forward curve was backward by approximately $0.5 \notin/USG$ from the dead prompt timeframe through mid-May.

Prompt 7.8 RVP CBOB differentials rose by 0.5¢/USG to June Nymex -3¢/USG. The market was bid at June Nymex -3.25¢/USG and offered at June Nymex -2.75¢/USG prior to a small volume trade at the assessed level.

Buckeye and barge 9.0 RVP CBOB were unchanged at June Nymex $-7 \notin/USG$ to $-6.75 \notin/USG$. Laurel CBOB maintained a premium over New York Harbor at June Nymex $-5.75 \notin/USG$ amid a regional shortage.

Colonial offline M2 differentials rose by 1¢/USG at June Nymex -0.75¢/USG to -0.5¢/USG, or flat to Buckeye and barge RBOB. Offers held at June Nymex flat.

Colonial offline A2 was offered at June Nymex -5¢/USG. Differentials fell by 0.13¢/USG to June Nymex -5.25¢/USG amid weak bidding interest.

Colonial line space was negative at -0.1¢/USG amid a weak arbitrage from the US Gulf coast to New York Harbor.

Gulf coast

Gasoline prices in the US Gulf coast rebounded on the back of a stronger Nymex RBOB basis, effectively erasing Friday's losses.

Prompt differentials in the region were mixed amid scheduling of Colonial Pipeline's 27th cycle.

Conventional 87 finished gasoline values rose by $3.27 \epsilon/USG$ session-on-session, with differentials gaining $0.75 \epsilon/USG$ over Friday's assessed midpoint. Trades for the prompt cycle were done at June Nymex -5.75 ϵ and -6 ϵ/USG .

Deals for 9.0 RVP regular CBOB were done between June Nymex -12.5¢ and -12.75¢/USG, holding unchanged from the previous session. The forward cycle roll was done at -0.1¢ and -0.05¢/USG.

Valuations for 7.4 RVP regular RBOB rose by $0.43 \notin/USG$ following trade at June Nymex $-4.65 \notin/USG$ and later offers at $-4.75 \notin/USG$.

Premium 9.0 RVP CBOB saw differentials decline by $1.5 \notin$ /USG as deals were heard done at Nymex RBOB +0.75 \notin /USG and

Atlantic coast				¢/USG
	Basis	Differential	Price	±
New York waterborne				
87 conv inc duty 9.0	Jun	-0.75/-0.50	209.40-209.65	+3.52
87 conv ex duty 9.0	Jun	-21.06/-20.81	189.09-189.34	+2.90
Reg CBOB inc duty 7.8	Jun	-2.00/-1.50	208.15-208.65	+3.02
Reg CBOB ex duty 7.8	Jun	-22.31/-21.81	187.84-188.34	+2.40
Reg RBOB inc duty 7.4	Jun	+0.50/+0.75	210.65-210.90	+2.90
Reg RBOB ex duty 7.4	Jun	-19.81/-19.56	190.34-190.59	+2.28
89 conv inc duty 9.0			214.52-214.77	+3.17
Prem RBOB inc duty 7.4	Jun	+18.13/+18.38	228.28-228.53	+2.53
93 conv inc duty 9.0	Jun	+13.88/+14.13	224.03-224.28	+2.52
Boston waterborne				
Reg RBOB 7.4	Jun	+1.38/+1.88	211.53-212.03	+2.90
Colonial Linden				
87 conv M Cycle 20 9.0	Jun	-0.75/-0.50	209.40-209.65	+3.52
89 conv Cycle 20 9.0			214.39-214.90	+3.17
93 conv V Cycle 20 9.0	Jun	+13.50/+14.50	223.65-224.65	+2.52
Reg CBOB Cycle 20 9.0	Jun	-5.50/-5.00	204.65-205.15	+2.39
Reg RBOB Cycle 20 9.0	Jun	+2.50/+3.50	212.65-213.65	+2.52
New York barge				
Reg CBOB dead prompt 7.8	Jun	-3.25/-2.75	206.90-207.40	+2.52
Reg CBOB prompt 7.8	Jun	-3.25/-2.75	206.90-207.40	+3.02
Reg CBOB dead prompt 9.0	Jun	-7.00/-6.75	203.15-203.40	+2.52
Reg CBOB prompt 9.0	Jun	-7.00/-6.75	203.15-203.40	+2.52
Reg RBOB dead prompt 7.4	Jun	-0.75/-0.25	209.40-209.90	+3.02
Reg RBOB prompt 7.4	Jun	-0.75/-0.50	209.40-209.65	+2.90
Prem CBOB dead prompt 7.8	Jun	+16.50/+17.50	226.65-227.65	+2.52
Prem CBOB prompt 7.8	Jun	+16.50/+17.50	226.65-227.65	+2.52
Prem CBOB dead prompt 9.0	Jun	+11.50/+12.00	221.65-222.15	+2.52
Prem CBOB prompt 9.0	Jun	+11.50/+12.00	221.65-222.15	+2.52
Prem RBOB dead prompt 7.4	Jun	+16.50/+17.50	226.65-227.65	+2.52
Prem RBOB prompt 7.4	Jun	+16.50/+17.50	226.65-227.65	+2.52
Buckeye	Juli	+10.30/+17.30	220.03-227.03	+Z.JZ
Reg CBOB dead prompt 7.8	Jun	-3.25/-2.75	206.90-207.40	+2.52
Reg CBOB dead prompt 7.8	Jun	-3.25/-2.75	206.90-207.40	+3.02
Reg CBOB dead prompt 9.0	Jun	-7.00/-6.75	203.15-203.40	+3.02
Reg CBOB dead prompt 9.0	Jun	-7.00/-6.75	203.15-203.40	+2.52
Reg RBOB dead prompt 7.4	Jun	-0.75/-0.25	209.40-209.90	+3.02
•	Jun	-0.75/-0.25	209.40-209.65	+3.02
Reg RBOB prompt 7.4	Jun Jun	+16.50/+17.50	209.40-209.65	+2.90
Prem CBOB dead prompt 7.8				
Prem CBOB prompt 7.8	Jun	+16.50/+17.50 +11.50/+12.00	226.65-227.65 221.65-222.15	+2.52
Prem CBOB dead prompt 9.0	Jun			
Prem CBOB prompt 9.0	Jun	+11.50/+12.00	221.65-222.15	+2.52
Prem RBOB dead prompt 7.4	Jun	+16.50/+17.50	226.65-227.65	+2.52
Prem RBOB prompt 7.4	Jun	+16.50/+17.50	226.65-227.65	+2.52
Laurel	l	(00/ 5 50	204 45 204 45	.2.52
Reg CBOB 9.0	Jun	-6.00/-5.50	204.15-204.65	+2.52
Prem CBOB 9.0	Jun	+11.50/+12.00	221.65-222.15	+2.52

CME Nymex	RBOB			
Price			Crack spre	ad
Month	¢/USG	±	Month	\$/Ы
Jun	210.15		Jun	+23.77
Jul	209.21		Jul	+23.46
Aug	206.97		Aug	+22.83



flat with the Nymex basis.

Conversely, 7.4 RVP premium RBOB was up by $0.38 \notin /USG$ on the day, with trade occurring at June Nymex $+12 \notin /USG$.

Midcontinent

US midcontinent gasoline cash differentials softened on Monday amid gains in the underlying benchmark.

Chicago West Shore/Badger pipeline 9 RVP CBOB traded at June Nymex -2.25¢/USG, down by 0.25¢/USG on C1 May. This was countered by Nymex gains, which buoyed outright prices up by 2.27¢/USG to \$2.08/USG.

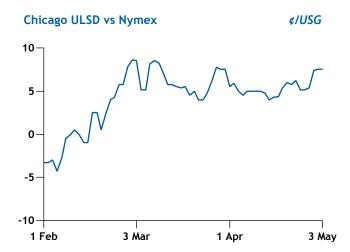
Wolverine Pipeline 9 RVP CBOB saw the largest declines, as a trade at June Nymex $-3 \notin/USG$ sent differentials down by $1 \notin/USG$ on C1 May.

Buckeye Complex (BCX) 9 RVP CBOB traded at June Nymex on a package with Wolverine CBOB. BCX was valued at June Nymex -3¢/USG in the absence of fresh deals, bids, or offers. This sent BCX CBOB differentials down by 0.75¢/USG from the previous session on C1 May.

Outright BCX CBOB prices firmed by $1.77 \notin /USG$ to 2.07 / USG.

In Group Three, prompt 9 RVP V grade CBOB traded from June Nymex -5.25¢/USG to -5.5¢/USG, with ensuing offers dropping to -5.75¢/USG. Overall V differentials were down by 0.25¢/USG.

Group Three prompt 9 RVP A grade 91 conventional gasoline maintained a 17.25¢/USG premium to V grade in the absence of fresh trade.



Gulf coast				¢/USG
	Basis	Differential	Price	±
Colonial				
87 conv M 9.0 Cycle 27	Jun	-6.00/-5.75	204.15-204.40	+3.27
Weighted average		-5.92	204.23	
87 conv M 9.0 Cycle 28	Jun	-6.00/-5.75	204.15-204.40	+3.27
Reg RBOB F 7.4 Cycle 27	Jun	-4.75/-4.65	205.40-205.50	+2.95
Weighted average		-4.70	205.45	
Reg RBOB F 7.4 Cycle 28	Jun	-4.75/-4.65	205.40-205.50	+2.95
Reg CBOB A 9.0 Cycle 27	Jun	-12.75/-12.50	197.40-197.65	+2.52
Weighted average		-12.63	197.52	
Reg CBOB A 9.0 Cycle 28	Jun	-12.70/-12.40	197.45-197.75	+2.57
89 conv 9.0			207.65-207.90	+3.27
Prem CBOB D 9.0 Cycle 27	Jun	0.00/+0.75	210.15-210.90	+1.02
93 conv V 9.0 Cycle 27	Jun	+4.00/+4.25	214.15-214.40	+3.27
93 conv V 9.0 Cycle 28	Jun	+4.00/+4.25	214.15-214.40	+3.27
Prem RBOB 7.4 Cycle 27	Jun	+11.75/+12.25	221.90-222.40	+2.90
Prem RBOB 7.4 Cycle 28	Jun	+11.75/+12.25	221.90-222.40	+2.90
Colonial Line Space				
Gasoline Line 01 Cycle 27			-0.20/0.00	+0.13
Weighted average			-0.10	
Waterborne				
Reg CBOB A 9.0	Jun	-11.50/-11.25	198.65-198.90	+2.52
87 conv M 9.0	Jun	-4.75/-4.50	205.40-205.65	+3.27
89 conv 9.0			208.90-209.15	+3.27
Prem CBOB 9.0	Jun	+1.25/+2.00	211.40-212.15	+1.02
93 conv V 9.0	Jun	+5.25/+5.50	215.40-215.65	+3.27
Waterborne ex-RVO				
Reg CBOB A 9.0	Jun	-30.12/-29.87	180.03-180.28	+1.90
87 conv M 9.0	Jun	-23.37/-23.12	186.78-187.03	+2.65
89 conv 9.0			190.28-190.53	+2.65
93 conv V 9.0	Jun	-13.37/-13.12	196.78-197.03	+2.65
Texas CBOB				
Reg Texas CBOB 6.6			203.87	+2.86
Prem Texas CBOB 6.6			219.83	+2.52

see distillates section for Colonial Line 02 assessment

weighted average is volume-weighted average of deals done during the entire trading day



argus

Delivered Florida			¢/USG
	Origin	Price	±
Port Everglades, Florida			
Reg CBOB A 9.0	USGC	203.85	+2.52
Prem CBOB D 9.0	USGC	216.85	+1.02
Tampa, Florida			
Reg CBOB A 9.0	USGC	203.25	+2.52
Prem CBOB D 9.0	USGC	216.25	+1.02

Delivered South Amer	ica		\$/m3
	Origin	Price	±
Montevideo, Uruguay			
87 conv ex-RVO	USGC	513.11	+7.02
Eurobob Oxy	ARA	507.93	-1.92
Buenos Aires, Argentina			
87 conv ex-RVO	USGC	514.06	+7.02
Eurobob Oxy	ARA	509.13	-1.92
Pozos, Colombia			
87 conv	USGC	551.74	+8.66
Barranquilla, Colombia			
87 conv	USGC	550.25	+8.65
Cartagena, Colombia			
87 conv	USGC	550.47	+8.66
Callao, Peru			
87 conv ex-RVO	USGC	512.34	+7.02

West coast

West coast markets gasoline differentials traded lower to begin the week, moderating cash price gains as gasoline futures advanced.

Prompt May Los Angeles CARBOB traded $0.25 \notin/USG$ lower at +12.25 \notin/USG on Monday, as cash prices reached \$2.22/USG at the close, up 2.27 \notin/USG . June CARBOB sellers were reported at +14 \notin/USG , though cash premiums were unchanged in the absence of fresh bids. Cash prices inverted to contango versus the prompt month, having climbed 2.54 \notin/USG to \$2.21/USG. July CARBOB buyers were shown at Nymex +11 \notin/USG against sellers at +13 \notin/USG .

In northern California, prompt May regular CARBOB bids were shown at +11¢/USG against offers at Nymex +20¢/USG. An afternoon trade was heard at +15¢/USG, pulling cash premiums lower by a half cent. San Francisco cash prices rose over 2¢/USG to end the day at \$2.25/USG. San Francisco premium CARBOB was assessed at a 11.5¢/USG premium to regular Bay CARBOB.

Portland sub-octane gasoline sellers for newly prompt

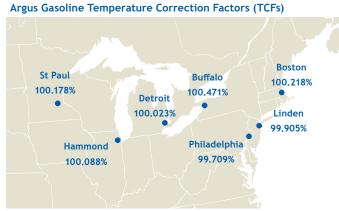
Midcontinent				¢/USG
	Basis	Differential	Price	±
Group 3				
Suboctane V 9.0 prompt	Jun	-5.75/-5.25	204.40-204.90	+2.92
Weighted average		-5.32	204.83	
Suboctane V 9.0 any May	Jun	-6.25/-5.75	203.90-204.40	
91 conv A 9.0 prompt	Jun	+11.50/+12.00	221.65-222.15	+2.92
West Shore/Badger				
Reg CBOB 9.0 1st May	Jun	-2.50/-2.00	207.65-208.15	+2.27
Reg CBOB 9.0 2nd May	Jun	-2.50/-2.00	207.65-208.15	+2.27
87 conv 9.0 1st May	Jun	-2.50/-2.00	207.65-208.15	+2.27
87 conv 9.0 2nd May	Jun	-2.50/-2.00	207.65-208.15	+2.27
89 conv 9.0			216.49-216.99	+2.27
91 conv 9.0 1st May	Jun	+22.75/+23.25	232.90-233.40	+2.27
91 conv 9.0 2nd May	Jun	+22.75/+23.25	232.90-233.40	+2.27
Reg RBOB 7.4 1st May	Jun	+4.75/+5.25	214.90-215.40	+1.77
Reg RBOB 7.4 2nd May	Jun	+4.75/+5.25	214.90-215.40	+1.77
Prem RBOB 7.4 1st May	Jun	+26.00/+26.50	236.15-236.65	+1.77
Chicago BCX				
Reg CBOB 9.0 1st May	Jun	-3.25/-2.75	206.90-207.40	+1.77
Reg CBOB 9.0 2nd May	Jun	-3.25/-2.75	206.90-207.40	+1.77
91 conv 9.0 1st May	Jun	+22.75/+23.25	232.90-233.40	+2.27
Reg RBOB 7.4 1st May	Jun	+4.75/+5.25	214.90-215.40	+1.77
Prem RBOB 7.4 1st May	Jun	+26.00/+26.50	236.15-236.65	+1.77
Chicago Wolverine				
Reg CBOB 9.0 1st May	Jun	-3.25/-2.75	206.90-207.40	+1.52
91 conv 9.0 1st May	Jun	+22.75/+23.25	232.90-233.40	+2.27

West coast				¢/USG
	Basis	Differential	Price	±
Los Angeles				
Reg CARBOB 5.99 May	Jun	+12.00/+12.50	222.15-222.65	+2.27
Weighted average		+12.25	222.40	
Reg CARBOB 5.99 Jun	Jul	+9.00/+14.00	218.21-223.21	+2.54
Prem CARBOB 5.99 May	CARBOB	+11.25/+11.75	233.65-234.15	+2.27
Suboctane 9.0 May	Jun	+12.00/+12.50	222.15-222.65	+2.27
Reg AZRBOB 5.7 May	CARBOB	+11.50/+12.00	233.90-234.40	+2.27
Prem AZRBOB 5.7 May	CARBOB	+23.00/+23.50	245.40-245.90	+2.27
San Francisco				
Reg CARBOB 5.99 May	Jun	+14.50/+15.50	224.65-225.65	+2.02
Prem CARBOB 5.99 May	CARBOB	+11.00/+12.00	236.15-237.15	-0.98
San Francisco waterbone				
Reg CARBOB 6.0 May	Jun	+16.00/+17.00	226.15-227.15	+2.02
Reg CARBOB ex-RVO 6.0 May	Jun	-2.62/-1.62	207.53-208.53	+1.40
Portland				
Suboctane 7.8 May	Jun	+17.00/+19.00	227.15-229.15	

barrels were show at June RBOB +19¢/USG, though buyers remained passive leaving the midpoint a penny lower. Cash prices rebounded by 2.17¢/USG to close at 2.28/USG.







TCFs shown are for a specific terminal in that city. See TCF Methodology for details. For a given amount of fuel, the Argus TCF is the volume at 60° F divided by the volume at the real in-tank temperature. See all TCFs.

Spot crack spreads \$/b				\$/ <i>Ы</i>
Region	Basis	Yield	Spread	±
USAC	Brent	3-2-1	19.03	+1.25
USGC sweet	WTI Houston	3-2-1	18.55	+0.47
USGC sour	Mars	3-2-1	19.43	+0.53
Chicago	WCS	6-3-2-1	29.30	+0.05
Group Three	WTI Cushing	3-2-1	20.66	+0.27
USWC	ANS	5-3-1-1	18.67	+0.07

Assessment rationale

The Argus US Atlantic coast prompt RBOB barge assessment was based on prompt RBOB Buckeye trades as the delivery modes were deemed at parity.

The US Gulf coast regular CBOB A 9.0 RVP market met the volume minimums needed to calculate the VWA in accordance with the methodology.

The US Gulf coast regular RBOB F market was assessed based on trade at June Nymex RBOB -4.65¢/USG and later offers at Nymex -4.75¢/USG.

The US Gulf coast 87 conventional M 9.0 RVP market met the volume minimums needed to calculate the VWA in accordance with the methodology.

Chicago West Shore/Badger pipeline CBOB deals set the midpoint price according to the methodology. The low and high prices were set at 0.25¢/USG on either side of the deal level.

		- ·	
Grade	Timing	Price	Volum
Colonial A2	cycle 27	-12.75	2
	cycle 27	-12.75	2
	cycle 27	-12.75	2
	cycle 27	-12.75	7
	cycle 27	-12.65	2
	cycle 27	-12.65	2
	cycle 27	-12.65	2
	cycle 27	-12.60	2
	cycle 27	-12.50	2
	cycle 27	-12.50	2
	cycle 27	-12.50	2
	cycle 27	-12.50	2
	cycle 27	-12.50	2
	cycle 27	-12.50	2
	cycle 27	cycle 28 -0.10	2
	cycle 27	cycle 28 -0.05	7
Colonial D2	cycle 27	+0.00	2
	cycle 27	+0.00	2
Colonial F1	cycle 27	-4.65	2
	cycle 27	-4.65	2
Colonial H1	cycle 27	+12.00	1
	cycle 27	+12.00	2
Colonial M2	cycle 27	-6.00	2
	cycle 27	-6.00	2
	cycle 27	-5.75	2

Atlantic coast deals			
Grade	Timing	Price	Volume
reg CBOB Buckeye (7.80)	133E	Jun -3.00	5
reg RBOB Buckeye (7.40)	10 May	Jun -0.75	25
	10 May	Jun -0.50	25
	5 May	Jun -0.50	45
	5-6 May	Jun -0.50	25

Midcontinent deals						
Grade	Timing	Price	Volume			
reg CBOB Wolverine (9.00)	C1 May	Jun -3.00	10			
reg RBOB West Shore (7.40)	C1 May	Jun +5.00	25			
suboctane V MPL Group 3 (9.00)	prompt	Jun -5.50	10			
	prompt	Jun -5.25	25			

West coast deals			
Grade	Timing	Price	Volume
reg CARBOB LA (5.99)	Jun	Jul +12.25	25
	Jun	Jul +12.25	25



Atlantic coast

A stronger June Nymex ultra-low sulfur diesel (ULSD) futures contract lifted US Atlantic coast distillate prices on Monday.

Arbitrage opportunities to ship diesel and jet fuel into the region from the US Gulf coast remained mostly unappealing on paper.

Barge, Laurel pipeline and off-line Colonial pipeline ULSD cash differentials rose by $0.20-0.60 \notin/USG$ in daily comparison, while Buckeye pipeline values relative to the front-month basis contract held stable. Outright diesel prices increased 2.95-3.55 \notin/USG , varying by delivery mode, as the June Nymex settled higher by $2.95 \notin/USG$ at 1.9519/USG.

The spread between US Atlantic coast and US Gulf coast ULSD prices remained below the pipeline tariff between the two hubs, keeping arbitrage closed on paper. The spread between prompt Colonial pipeline prices in the two hubs was assessed at 5.73¢/USG, or 0.25¢/USG below the cost of shipping into Linden, New Jersey, from Pasadena, Texas.

East coast jet fuel differentials were assessed $1.38 \notin /USG$ lower on Monday, with Buckeye pipeline material closest bid and offered at May Nymex -18.50¢/USG and -17.75¢/USG. Barge and Laurel pipeline markets were assessed flat to the Buckeye pipeline, and off-line Colonial pipeline values were held at a 0.50¢/USG premium.

Jet fuel barges ended the day valued $5.88 \notin /USG$ above US Gulf coast barrels, and the spread between prompt Colonial pipeline prices in the two hubs was assessed at $6.38 \notin /USG$. Accounting for taxes, fees and line loss, market participants have pegged the true cost of shipping into New York from Houston closer to $6.25 \notin /USG$, marking for a marginal arbitrage opportunity.

Gulf coast

US Gulf coast diesel and jet fuel prices regained most of Friday's price losses as ULSD Nymex futures rebounded against mixed differentials.

Ultra-low sulphur diesel (ULSD) traded slightly higher in

CME Nymex ultra low-sulfur diesel					
Price Crack spread					
Month	¢/USG	±	Month	\$/Ы	
Jun	195.19		Jun	+17.49	
Jul	195.37		Jul	+17.65	
Aug	195.56		Aug	+18.04	

Atlantic coast				¢/USC
	Basis	Differential	Price	÷
New York waterborne				
Heating oil	Jun	-22.50/-21.50	172.69-173.69	+2.95
ULSD	Jun	0.00/+0.15	195.19-195.34	+3.15
Jet	Jun	-18.63/-17.63	176.57-177.57	+1.58
Kerosine	Jun	-13.63/-12.63	181.57-182.57	+1.58
ULSK	Jun	+16.75/+17.25	211.94-212.44	+2.9
Boston waterborne				
ULSHO	Jun	-15.38/-14.88	179.81-180.31	+3.0
New York barge				
Heating oil prompt	Jun	-22.50/-21.50	172.69-173.69	+2.9
Heating oil any May	Jun	-22.50/-21.50	172.69-173.69	
ULSHO	Jun	-18.00/-17.75	177.19-177.44	+3.0
ULSD prompt	Jun	0.00/+0.15	195.19-195.34	+3.1
ULSD any May	Jun	-0.25/+0.25	194.94-195.44	
Jet	Jun	-18.50/-17.75	176.69-177.44	+1.5
Kerosine	Jun	-13.50/-12.75	181.69-182.44	+1.5
ULSK	Jun	+16.75/+17.25	211.94-212.44	+2.9
Buckeye	Juli	10.757 17.25	211.71212.11	. 2.17
ULSHO	Jun	-17.50/-17.00	177.69-178.19	+2.9
ULSD	Jun	0.00/+0.25	195.19-195.44	+2.9
Jet	Jun	-18.50/-17.75	176.69-177.44	+1.5
Kerosine	Jun	-13.50/-12.75	181.69-182.44	+1.5
Laurel	Jun	-13.30/-12.73	101.07-102.44	τı.J
ULSHO	Jun	-14.75/-13.75	180.44-181.44	+2.9
ULSD	Jun	+0.40/+0.90	195.59-196.09	+2.9
Jet	Jun	-18.50/-17.75	176.69-177.44	+3.5
Colonial Linden	Jun	-16.30/-17.73	1/0.09-1/7.44	+1.5
ULSHO Cycle 20	Jun	-16.50/-16.00	178.69-179.19	+2.9
HO 77 Cycle 19	Jun	-22.50/-21.50	172.69-173.69	+2.9
ULSD Cycle 20				
	Jun	+0.75/+1.25	195.94-196.44	+3.5
Jet 54 Cycle 20	Jun	-18.00/-17.25	177.19-177.94	+1.5
Gulf coast				¢/US(
	Basis	Differential	Price	
Colonial				
JLSHO 67 Cycle 28	Jun	-22.95/-22.90	172.24-172.29	+2.3
Heating oil 77 Cycle 28	Jun	-31.50/-28.50	163.69-166.69	+2.9
Weighted average		-30.00	165.19	
Heating oil 77 Cycle 29	Jun	-31.50/-28.50	163.69-166.69	+2.9
ULSD 62 Cycle 28	Jun	-4.75/-4.70	190.44-190.49	+2.9
Weighted average		-4.70	190.49	
ULSD 62 Cycle 29	Jun	-4.75/-4.70	190.44-190.49	+2.9
Jet 54 Cycle 28	Jun	-24.25/-23.75	170.94-171.44	+1.7
Weighted average	Jun	-24.06	171.13	
Jet 54 Cycle 29	Jun	-24.25/-23.65	170.94-171.54	+1.7
Kerosine 55 Cycle 28	Jun	-24.00/-23.50	171.19-171.69	+1.7
Kerosine 55 Cycle 29	Jun	-24.00/-23.40	171.19-171.79	+1.7
Colonial Line Space	Juii	-27.00/-23.40	17 1.17-17 1.79	·1./
			0 70 / 0 40	-
Distillates Line 02 Cycle 28			-0.70/-0.40	n
Waterborne	lur	20.25/27.25	164.04.4(7.0.4	
Heating oil	Jun	-30.25/-27.25	164.94-167.94	+2.9
ULSD 62	Jun	-3.50/-3.45	191.69-191.74	+2.9
ULSD 62 ex-RVO	Jun	-22.12/-22.07	173.07-173.12	+2.3
Jet 54	Jun	-23.00/-22.50	172.19-172.69	+1.7
Kerosine 55	Jun	-22.75/-22.25	172.44-172.94 hted average is vo	+1.7

see gasoline section for Colonial Line 01 assessment; weighted average is volumeweighted average of deals done during the entire trading day



Delivered Florida			¢/USG
	Origin	Price	±
Port Everglades, Florida			
ULSD 62	USGC	196.79	+2.98
Jet 54	USGC	177.51	+1.70
Tampa, Florida			
ULSD 62	USGC	196.19	+2.97
Jet 54	USGC	176.92	+1.70
Delivered South Americ	a		\$/m3
	Origin	Price	±
Santos, Brazil			
ULSD ex-RVO	USGC	484.09	+6.24
Jet	USGC	478.49	+4.51
Rio de Janeiro, Brazil			
Jet	USGC	478.07	+4.51
Paranagua, Brazil			
ULSD ex-RVO	USGC	483.26	+6.24
Itaqui, Brazil			
ULSD ex-RVO	USGC	471.99	+6.24
Jet	USGC	469.24	+4.50
Suape, Brazil			
ULSD ex-RVO	USGC	473.83	+6.24
Jet	USGC	470.94	+4.50
Montevideo, Uruguay			
ULSD ex-RVO	USGC	480.30	+6.23
Buenos Aires, Argentina			
ULSD ex-RVO	USGC	481.36	+6.23
Pozos, Colombia			
ULSD	USGC	516.69	+7.87
Barranquilla, Colombia			
ULSD	USGC	514.91	+7.87
Jet	USGC	463.29	+4.50
Cartagena, Colombia			
ULSD	USGC	515.17	+7.88
Callao, Peru			
ULSD ex-RVO	USGC	479.21	+6.24
Jet	USGC	475.81	+4.50

daily comparison at June ULSD -4.75/USG and -4.7/USG. Outright prices rose 3¢/USG to \$1.91/USG on the back of Nymex futures, recovering most of Friday's losses. The ULSD forward curve remained flat, with prompt rolls done at flat.

Jet fuel differentials traded $1.25 \notin/USG$ lower from June ULSD $-24.25 \notin/USG$ to -23.75 #/USG, continuing to press lower on the lowest level in one year. Outright prices rose 1.7 #/USG on the back of Nymex gains to \$1.71/USG. The jet fuel forward curve moved into contango with prompt rolls done at flat and widening to -0.1 #/USG contango by the end of trading.

Midcontinent				¢/USG
	Basis	Differential	Price	±
Group 3				
ULSD X prompt	Jun	+3.50/+4.00	198.69-199.19	+2.58
Weighted average		+3.75	198.94	
ULSD X any May	Jun	+3.25/+3.75	198.44-198.94	
Jet Q prompt	Jun	-16.00/-12.00	179.19-183.19	+3.08
West Shore/Badger				
ULSD 1st May	Jun	+7.25/+7.75	202.44-202.94	+2.95
ULSD 2nd May	Jun	+6.50/+7.00	201.69-202.19	+2.95
Jet 1st May	Jun	-15.00/-9.00	180.19-186.19	+2.95
Jet 2nd May	Jun	-15.00/-9.00	180.19-186.19	+2.95
Chicago BCX				
ULSD BCX 1st May	Jun	+6.75/+7.25	201.94-202.44	+2.70
ULSD BCX 2nd May	Jun	+6.00/+6.50	201.19-201.69	+2.70
Chicago Wolverine				
ULSD 1st May	Jun	+7.00/+7.50	202.19-202.69	+2.95
West coast				¢/USG
	Basis	Differential	Price	±
Los Angeles				
Carb ULSD May	Jun	+2.50/+3.50	197.69-198.69	+3.20
Weighted average		+3.00	198.19	
EPA ULSD May	Jun	+2.50/+3.50	197.69-198.69	+2.95
Jet May				+2.90
	Jun	-16.25/-15.75	178.94-179.44	+1.45
Weighted average	Jun	-16.25/-15.75 -16.00	178.94-179.44 179.19	
	Jun			
Weighted average	Jun Jun			
Weighted average		-16.00	179.19	+1.45
Weighted average LAX Jet May		-16.00	179.19	+1.45
Weighted average LAX Jet May San Francisco	Jun	-16.00 -16.75/-16.25	179.19 178.44-178.94	+1.45
Weighted average LAX Jet May San Francisco Carb ULSD May	Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00	179.19 178.44-178.94 196.19-200.19	+1.45 +1.45 +2.95
Weighted average LAX Jet May San Francisco Carb ULSD May EPA ULSD May	Jun Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00 +3.50/+4.50	179.19 178.44-178.94 196.19-200.19 198.69-199.69	+1.45 +1.45 +2.95 +2.95
Weighted average LAX Jet May San Francisco Carb ULSD May EPA ULSD May Jet May	Jun Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00 +3.50/+4.50	179.19 178.44-178.94 196.19-200.19 198.69-199.69	+1.45 +1.45 +2.95 +2.95
Weighted average LAX Jet May San Francisco Carb ULSD May EPA ULSD May Jet May San Francisco waterborne	Jun Jun Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00 +3.50/+4.50 -16.25/-15.75	179.19 178.44-178.94 196.19-200.19 198.69-199.69 178.94-179.44	+1.45 +1.45 +2.95 +2.95 +1.45
Weighted average LAX Jet May San Francisco Carb ULSD May EPA ULSD May Jet May San Francisco waterborne Carb ULSD May	Jun Jun Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00 +3.50/+4.50 -16.25/-15.75 +2.50/+6.50	179.19 178.44-178.94 196.19-200.19 198.69-199.69 178.94-179.44 197.69-201.69	+1.45 +1.45 +2.95 +2.95 +1.45 +2.95
Weighted average LAX Jet May San Francisco Carb ULSD May EPA ULSD May Jet May San Francisco waterborne Carb ULSD May Carb ULSD May	Jun Jun Jun Jun	-16.00 -16.75/-16.25 +1.00/+5.00 +3.50/+4.50 -16.25/-15.75 +2.50/+6.50	179.19 178.44-178.94 196.19-200.19 198.69-199.69 178.94-179.44 197.69-201.69	+1.45 +1.45 +2.95 +2.95 +1.45 +2.95

The arbitrage opportunity to ship jet fuel between the Gulf coast and Atlantic coast remained open on paper for a fifth session. Houston jet fuel sold at an average discount of $6.4 \notin$ /USG to New York Harbor material, exceeding the market-pegged total shipping cost of $6.25 \notin$ /USG, including tariff, line loss, and fees.

Midcontinent

US midcontinent diesel and jet fuel prices increased on the back of Nymex gains on Monday, while cash differentials were mostly lower throughout the region.

Group Three prompt X grade ultra-low sulphur diesel





DEF bulk, 30 Apr 21			¢/USG
	Low	High	±
fot Atlanta	81.00	86.00	nc
fot Chicago	81.00	86.00	nc
fot Dallas	80.00	84.00	nc
fot Denver	81.00	84.00	nc
fot Los Angeles	86.00	91.00	nc
fot Philadelphia	84.00	94.00	nc

Argus Diesel Temperature Correction Factors (TCFs)



TCFs shown are for a specific terminal in that city. See TCF Methodology for details. For a given amount of fuel, the Argus TCF is the volume at 60° F divided by the volume at the real in-tank temperature. See all TCFs.

(ULSD) at Tulsa, Oklahoma, traded at June Nymex +3.75¢/USG to send differentials down by 0.5¢/USG from the previous session's assessed midpoint.

Outright Group Three ULSD prices rose by 2.58¢/USG to \$1.99/USG. The arbitrage opportunity for sending US Gulf coast ULSD to Tulsa remained open on paper at 2.69¢/USG above Magellan Pipeline's shipping tariff.

Chicago Buckeye Complex (BCX) ULSD changed hands at June Nymex +7¢/USG, down by 0.25¢/USG on C1 May. Outright BCX ULSD prices were up by 2.7¢/USG to \$2.02/USG. Arbitrage economics from the Gulf coast to BCX at Hammond, Indiana, held open on paper, with BCX fetching a 11.73¢/USG premium.

West Shore/Badger pipeline ULSD differentials were unchanged at June Nymex +7.5¢/USG in the absence of fresh deals, bids, or offers on C1 May.

US midcontinent jet fuel prices firmed amid Nymex gains on Monday, while cash differentials were unchanged from last week. Chicago jet fuel prices rose by 2.95¢/USG to \$1.83/USG. Arbitrage economics for shipping US Gulf coast jet to Chicago remained viable on paper, with Chicago's premium widening by

Gulf coast deals			
Grade	Timing	Price	Volun
Colonial 54	cycle 28	-24.25	;
	cycle 28	-24.25	:
	cycle 28	-24.25	
	cycle 28	-24.25	:
	cycle 28	-24.25	
	cycle 28	-24.25	
	cycle 28	-24.10	:
	cycle 28	-24.00	:
	cycle 28	-24.00	:
	cycle 28	-24.00	
	cycle 28	-24.00	:
	cycle 28	-24.00	:
	cycle 28	-24.00	:
	cycle 28	-23.85	
	cycle 28	-23.75	
	cycle 28	-23.75	
	cycle 28	cycle 29 -0.10	:
	cycle 28	cycle 29 -0.05	
	cycle 28	cycle 29 +0.00	10
Colonial 62	cycle 28	-4.75	
	cycle 28	-4.70	:
	cycle 28	-4.70	
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	-4.70	
	cycle 28	-4.70	:
	cycle 28	-4.70	
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	-4.70	:
	cycle 28	cycle 29 +0.00	:

$1.25 \notin USG$ to $12 \notin USG$.

Group Three jet fuel prices at Tulsa, Oklahoma, increased by 3.08 ¢/USG to \$1.81/USG. Group Three's premium to the Gulf coast widened by 1.38 ¢/USG to 10 ¢/USG.

West coast

Prompt Los Angeles jet cash differentials sank to six-weeks lows on Monday, though cash prices rose as bullish Nymex futures offset the spot market decline.

May Los Angeles jet fuel changed hands at a $16 \notin /USG$ discount to the June Nymex, lowering differentials by $1.5 \notin /USG$ to levels last seen in late March. Cash prices closed at \$1.80/USG after climbing $1.45 \notin /USG$.

New import fixtures added over the weekend lifted the to-





tal numbers of inbound cargos to 11, according to oil analytics firm Vortexa. Early estimates for May import totals are around 30pc higher than April, at 130,000 b/d and reflect the highest potential total in nine months.

California diesel cash differentials held at +3¢/USG for both Los Angeles CARB diesel as well as export-grade, EPA ULSD. Buyers for northern California domestic CARB diesel were shown at +1¢/USG and in the absence of a counter, differentials remained at +3¢/USG. Los Angeles diesel prices closed at \$1.98, up 2.95¢/USG. San Francisco EPA ULSD was last assessed at +4¢/USG in May and levels were unchanged in the absence of new trade. Bay EPA ULSD rose 2.95¢/USG to \$1.99/USG.

Assessment rationale

An off-line Colonial pipeline ULSD transaction meeting the volume minimums was available to set the midpoint price according to the methodology. The low and high prices were set at $0.25 \notin$ /USG on either side of this level.

Buckeye pipeline ULSD bids and offers were available to set the low and high prices according to the methodology.

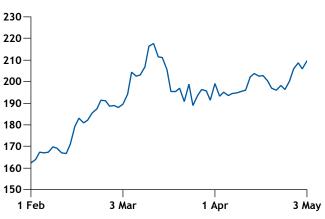
Barge ULSD transactions meeting the volume minimums were available to set the low and high prices according to the methodology.

Transactions meeting the volume minimums were available to set the low and high price for Gulf coast Colonial ULSD according to the methodology.

Gulf coast Colonial high sulphur heating oil did not trade. In the absence of new information the price is assessed unchanged from the previous session. A lower bid was not used. Absent of new information, prompt off-line Colonial pipeline ULSH cash differentials were not changed.







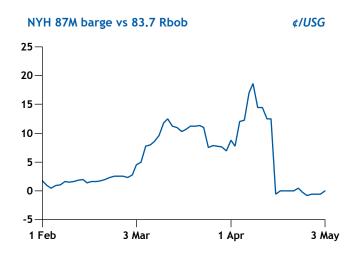
Atlantic coast deals			
Grade	Timing	Price	Volume
Diesel ULSD 62 CPL	cycle 20	Jun +1.00	25
	cycle 24	Jun +1.10	25
Diesel ULSD Buckeye	12 May	Jun +0.00	25
Diesel ULSD Laurel	7-10 May	Jun +0.65	45
Diesel ULSD NYH barge	3-4 May	Jun +0.00	25
	5-7 May	Jun +0.15	125
	prompt	Jun +0.00	25
Heating oil 15ppm NYH barge	7-12 May	Jun -18.00	25
	7-12 May	Jun -17.75	25
	prompt	Jun -17.75	25

Midcontinent deals			
Grade	Timing	Price	Volume
Diesel ULSD MPL Group 3	prompt	Jun +3.75	10
Jet fuel Explorer	Cycle 23	-13.50	25

West coast deals			
Grade	Timing	Price	Volume
Jet fuel LA	May	Jun -16.00	25

Buckeye pipeline jet fuel bids and offers were available to set the low and high prices according to the methodology. Barge jet fuel was assessed flat to Buckeye pipeline jet fuel, for which bids and offers were available to set the low and high prices according to the methodology.

Transactions meeting the volume minimums were available to set the low and high price for Gulf coast Colonial jet fuel according to the methodology.





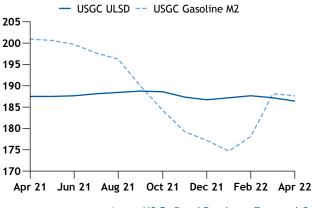
CLEAN PRODUCT FORWARD CURVES

Physical				¢/USG	
Timing	Basis	Differential	Price	±	
87 conv M Colonial Linden					
Cycle 20	Jun	-0.75/-0.50	209.40-209.65	+3.52	
Cycle 21	Jun	-0.75/-0.50	209.40-209.65	+3.52	
Cycle 22	Jun	-0.75/-0.50	209.40-209.65	+3.52	
Reg CBOB A Colonial Linden					
Cycle 20	Jun	-5.50/-5.00	204.65-205.15	+2.40	
Cycle 21	Jun	-5.50/-5.00	204.65-205.15	+2.40	
Cycle 22	Jun	-5.50/-5.00	204.65-205.15	+2.40	
Reg RBOB New York barge					
Prompt	Jun	-0.75/-0.50	209.40-209.65	+2.90	
10 days forward	Jun	-1.00/-0.75	209.15-209.40	+2.65	
15 days forward	Jun	-1.25/-1.00	208.90-209.15	+2.52	
20 days forward	Jun	-1.50/-1.25	208.65-208.90	+2.40	
Any May	Jun	-1.75/-1.25	208.40-208.90	21.0	
Prem RBOB New York barge	Juli	1.7.57 1.25	200.10 200.70		
Prompt	Jun	+16.50/+17.50	226.65-227.65	+2.52	
10 days forward	Jun	+16.50/+17.00	226.65-227.15	+2.27	
15 days forward	Jun	+16.25/+16.75	226.40-226.90	+2.15	
	Jun	+16.23/+16.75	226.15-226.65	+2.15	
20 days forward 87 conv Colonial M	Jun	+10.00/+10.00	220.13-220.03	+2.02	
	l	(00/ 5 75	204 45 204 40	+3.27	
Cycle 27	Jun	-6.00/-5.75	204.15-204.40		
Cycle 28	Jun	-6.00/-5.75	204.15-204.40	+3.27	
Cycle 29	Jun	-6.00/-5.75	204.15-204.40	+3.27	
Cycle 30	Jun	-6.00/-5.75	204.15-204.40	+3.27	
Reg CBOB Colonial A		10 75 / 10 50	107 10 107 15	0.50	
Cycle 27	Jun	-12.75/-12.50	197.40-197.65	+2.52	
Cycle 28	Jun	-12.70/-12.40	197.45-197.75	+2.57	
Cycle 29	Jun	-12.70/-12.40	197.45-197.75	+2.57	
Cycle 30	Jun	-12.70/-12.40	197.45-197.75	+2.57	
Heating oil New York barge					
Prompt	Jun	-22.50/-21.50	172.69-173.69	+2.95	
10 days forward	Jun	-22.50/-21.50	172.69-173.69	+2.95	
15 days forward	Jun	-22.50/-21.50	172.69-173.69	+2.95	
20 days forward	Jun	-22.50/-21.50	172.69-173.69	+2.95	
Any May	Jun	-22.50/-21.50	172.69-173.69		
ULSH Colonial Linden					
Cycle 20	Jun	-16.50/-16.00	178.69-179.19	+2.95	
Cycle 21	Jun	-16.50/-16.00	178.69-179.19	+2.95	
Cycle 22	Jun	-16.50/-16.00	178.69-179.19	+2.95	
ULSD New York barge					
Prompt	Jun	0.00/+0.15	195.19-195.34	+3.15	
10 days forward	Jun	-0.25/+0.25	194.94-195.44	+3.08	
15 days forward	Jun	-0.25/+0.25	194.94-195.44	+3.08	
20 days forward	Jun	-0.25/+0.25	194.94-195.44	+3.08	
Any May	Jun	-0.25/+0.25	194.94-195.44		
ULSD Colonial Linden					
Cycle 20	Jun	+0.75/+1.25	195.94-196.44	+3.53	
Cycle 21	Jun	+0.75/+1.25	195.94-196.44	+3.12	
Cycle 22	Jun	+0.75/+1.25	195.94-196.44	+2.70	

Physical (continued)				¢/USG
Timing	Basis	Differential	Price	±
Jet New York barge				
Prompt	Jun	-18.50/-17.75	176.69-177.44	+1.58
10 days forward	Jun	-18.50/-17.75	176.69-177.44	+1.58
15 days forward	Jun	-18.50/-17.75	176.69-177.44	+1.58
20 days forward	Jun	-18.50/-17.75	176.69-177.44	+1.58
Jet Colonial Linden				
Cycle 20	Jun	-18.00/-17.25	177.19-177.94	+1.58
Cycle 21	Jun	-18.00/-17.25	177.19-177.94	+1.58
Cycle 22	Jun	-18.00/-17.25	177.19-177.94	+1.58
Kerosine New York barge				
Prompt	Jun	-13.50/-12.75	181.69-182.44	+1.58
10 days forward	Jun	-13.50/-12.75	181.69-182.44	+1.58
15 days forward	Jun	-13.50/-12.75	181.69-182.44	+1.58
20 days forward	Jun	-13.50/-12.75	181.69-182.44	+1.58
Heating oil Colonial 77				
Cycle 28	Jun	-31.50/-28.50	163.69-166.69	+2.95
Cycle 29	Jun	-31.50/-28.50	163.69-166.69	+2.95
Cycle 30	Jun	-31.50/-28.50	163.69-166.69	+2.95
Cycle 31	Jul	-31.70/-28.70	163.67-166.67	+2.93
Heating oil Colonial 77 Linde	en			
Cycle 19	Jun	-22.50/-21.50	172.69-173.69	+2.95
Cycle 20	Jun	-22.50/-21.50	172.69-173.69	+2.95
Cycle 21	Jun	-22.50/-21.50	172.69-173.69	+2.95
ULSD Colonial 62				
Cycle 28	Jun	-4.75/-4.70	190.44-190.49	+2.98
Cycle 29	Jun	-4.75/-4.70	190.44-190.49	+2.98
Cycle 30	Jun	-4.75/-4.70	190.44-190.49	+2.98
Cycle 31	Jul	-4.95/-4.90	190.42-190.47	+2.96
Jet Colonial 54				
Cycle 28	Jun	-24.25/-23.75	170.94-171.44	+1.70
Cycle 29	Jun	-24.25/-23.65	170.94-171.54	+1.75
Cycle 30	Jun	-24.25/-23.55	170.94-171.64	+1.80
Cycle 31	Jul	-24.45/-23.65	170.92-171.72	+1.83

Refined products swaps

¢/USG



⁻ Argus US Refined Products Forward Curves



RINs				¢/RIN
	Low	F	ligh	±
Renewable fuel (athenal D4)			5	
Renewable fuel (ethanol D6) 2019	153.50	154	1.00	+6.25
Weighted average	155.50		1.54	.0.25
2020	154.25		4.75	+6.25
2021	153.50	156	5.50	+5.50
Biomass-based diesel (D4)				
2019	160.25	163	3.25	+5.75
2020	161.00		4.00	+5.75
2021	162.00	165	5.00	+5.75
Cellulosic biofuels (D3)	206.00	20.	7.00	
2019 2020	296.00 303.00		7.00 1.00	nc
2020	298.00		9.00 9.00	nc
Advanced biofuels (D5)	270.00	L).		ne
2019	158.75	16 ⁻	1.75	+5.75
2020	159.00		2.00	+5.75
2021	161.00	164	4.00	+5.75
Renewable volume obligation (RVC	D)¢/USG			
2020		18	3.56	+0.68
2021		18	3.62	+0.62
RIN spreads				¢/RIN
	Today	± F	Prior day	5-day avg
Category spreads, 2020				
Biodiesel D4-ethanol D6	8.000	-0.500	8.500	8.400
Biodiesel D4-advanced biofuel D5	2.000	nc	2.000	2.000
Advanced biofuel D5-ethanol D6	6.000	-0.500	6.500	6.400
	0.000	-0.500	0.500	0.400
Category spreads, 2021	0.500	0.050	0.050	
Biodiesel D4-ethanol D6	8.500	+0.250	8.250	na
Biodiesel D4-advanced biofuel D5	1.000	nc	1.000	na
Advanced biofuel D5-ethanol D6	7.500	+0.250	7.250	na
Vintage spreads, 2020-2021				
Biodiesel D4	-1.000	nc	-1.000	na
Advanced biofuel D5	-2.000	nc	-2.000	na
Ethanol D6	-0.500	+0.750	-1.250	na
Tion 2 $(C(0))$			¢/mn 119	_
Tier 3 (CC0)	_	High	\$/IIII U3	G credits
		-		±
Standard 800.00		875.00		nc
Benzene credits				¢/USG
Low		High		±
CC0 125.00		175.00		nc
Sustainable aviation fuel (SA	F)			¢/USG
	Bid		Ask	±
CAE dol LIS wast coast				
SAF del US west coast	581.56	58.	3.18	4.72

Ethanol

US ethanol values rose as market participants eyed gains in July corn futures on Monday.

Front month CBOT corn futures shed 7.75¢/bushel, settling

Ethanol			¢/USG
	Low	High	±
Chicago			
Argo same-day	234.25	236.25	
Argo in-tank prompt	233.00	235.00	+3.00
Weighted average		233.43	
Argo in-tank any May	230.00	232.00	
Rule 11 rail prompt	232.00	238.00	+7.00
New York Harbor			
Barge any May	245.00	247.25	+5.00
US Gulf coast/south			
Houston barge/rail	242.40	245.40	+3.00
Tampa rail	250.25	252.75	+3.00
Atlanta rail	241.25	244.75	+3.00
Dallas rail	237.40	241.40	+3.00
Nebraska	237.10	211.10	-5.00
Union Pacific rail	223.00	224.00	+3.00
BNSF rail	222.00	223.00	+3.00
Los Angeles	222.00	225.00	-5.00
Low-carbon intensity rail	261.00	266.50	+3.00
Brazil	201.00	200.50	-5.00
fob anhydrous \$/m3	618.00	707.00	+6.50
fob anhydrous BRL/m3	3,343.13	3,824.59	+29.53
del anhydrous \$/m3	682.00	696.00	+17.50
del anhydrous BRL/m3	3,689.35	3,765.08	+88.90
det annyarous brenns	5,007.55	5,765.00	00:70
Biodiesel			¢/USG
	Differential	Price	±
New York Harbor rail	Differential	Price	
New York Harbor rail B100 SME Jun	Differential	Price	
			±
B100 SME Jun B99 SME Jun	+336.00/+342.25	531.19-537.44	± +11.33
B100 SME Jun	+336.00/+342.25	531.19-537.44	± +11.33
B100 SME Jun B99 SME Jun Houston rail/barge	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25	531.19-537.44 185.94-192.19	± +11.33 +2.70
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00	531.19-537.44 185.94-192.19 533.19-540.44	± +11.33 +2.70 +11.20
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00	531.19-537.44 185.94-192.19 533.19-540.44	± +11.33 +2.70 +11.20
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rgo	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19	± +11.33 +2.70 +11.20 +2.70
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rgo +340.25/+349.25	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44	± +11.33 +2.70 +11.20 +2.70 +11.45
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44	± +11.33 +2.70 +11.20 +2.70 +11.45
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob B99 FAME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rgo +340.25/+349.25	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19	± +11.33 +2.70 +11.20 +2.70 +11.45 +2.95
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19	± +11.33 +2.70 +11.20 +2.70 +11.45 +2.95
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19	± ++11.33 +2.70 +11.20 +2.70 +11.45 +2.95 -2.05 -7.30
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19	± ++11.33 +2.70 ++11.20 +2.70 ++11.45 +2.95 -2.05 -7.30 ¢/USG
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price	± ++11.33 +2.70 ++11.20 +2.70 ++11.45 +2.95 -2.05 -7.30 ¢/USG ±
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price 229.48-232.48	± +11.33 +2.70 +11.20 +2.70 +11.45 +2.95 -2.05 -7.30 ¢/USG ± +3.42
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun B99 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 rrgo +340.25/+349.25 -5.00/+4.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price	± ++11.33 +2.70 ++11.20 +2.70 ++11.45 +2.95 -2.05 -7.30 ¢/USG ±
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun Chicago In-tank transfer A B100 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 +340.25/+349.25 -5.00/+4.00 -100.00/-95.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price 229.48-232.48 229.48-232.48	± ++11.33 +2.70 ++11.20 +2.70 ++11.45 +2.95 -2.05 -7.30 ¢/USG ± +3.42 +3.42 +3.17
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun B99 SME Jun Chicago In-tank transfer A B100 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 +340.25/+349.25 -5.00/+4.00 -100.00/-95.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price 229.48-232.48 229.48-232.48	± ++11.33 +2.70 ++11.20 +2.70 ++11.45 +2.95 -2.05 -7.30 \$
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun Chicago In-tank transfer A B100 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel Los Angeles R99 San Francisco R99 50:50 split of retroact	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 +340.25/+349.25 -5.00/+4.00 -100.00/-95.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price 229.48-232.48 229.48-232.48	± +11.33 +2.70 +11.20 +2.70 +11.45 +2.95 -2.05 -7.30 (//USG ± +3.42 +3.17 (//USG Credit
B100 SME Jun B99 SME Jun Houston rail/barge B100 SME Jun Chicago In-tank transfer A B100 SME Jun San Francisco fob B99 FAME Jun Los Angeles fob B99 FAME Jun Renewable diesel	+336.00/+342.25 -9.25/-3.00 +338.00/+345.25 -7.25/0.00 +340.25/+349.25 -5.00/+4.00 -100.00/-95.00 -100.00/-95.00	531.19-537.44 185.94-192.19 533.19-540.44 187.94-195.19 535.44-544.44 190.19-199.19 95.19-100.19 95.19-100.19 Price 229.48-232.48 229.48-232.48	± +11.33 +2.70 +11.20 +2.70 +11.45 +2.95 -2.05 -7.30 ¢/USG ± +3.42 +3.17 ¢/USG

at 732.25¢/bushel. The July contract rose by 6.25¢/bushel to 679.5¢/bushel. Support for July came amid bullish market outlooks to dry weather in South America.

Chicago Rule 11 railcars with timing for the current week were bid and offered wide at $232 \notin/USG$ and $238 \notin/USG$, rising by $7 \notin/USG$ to $235 \notin/USG$.



Prompt in-tank transfers at Kinder Morgan's Argo terminal exchanged hands between $233 \notin/USG$ and $235 \notin/USG$, firming by $3 \notin/USG$ to $234 \notin/USG$.

Front-month barges at New York Harbor increased by $5 \notin USG$, while the barge/paper spread was valued at $+12.5 \notin USG$.

Brazil

Brazilian ethanol markets rose as limited supply of hydrous ethanol supported domestic prices, while waterborne values tracked higher corn futures.

In Sao Paulo, hydrous ethanol rose by R76/m³ to R3,326/ m³ inc-tax amid low prompt availability. Sugarcane is being processed later than expected and in a smaller quantity.

Anhydrous ethanol on a cif Brazil basis increased by $$18/m^3$ to $$682-696/m^3$, mirroring Chicago's paper market. Waterborne anhydrous to be shipped from Santos settled at $$618-707/m^3$ fob, up by $$6.50/m^3$ from the prior session over stronger bids.

RINs

RINs credits mostly firmed on Monday, supporting the Argus Renewable Volume Obligation to a fresh record high.

Biofuel spreads	
	Differential
Ethanol crush \$/bushel	-0.49
Heating oil-soybean oil ¢/USG	-3.17

Futures		
	Settlement	±
CBOT ethanol ¢/USG		
May 21	244.00	+11.00
Jun 21	234.00	+11.00
Jul 21	234.00	+11.00
Aug 21	226.00	+11.00
CBOT corn ¢/bushel		
May 21	732.25	-7.75
Jul 21	679.50	+6.25
Sep 21	591.75	-0.50
Dec 21	563.00	-0.75
CBOT soybean oil ¢/lb		
May 21	68.31	-0.15
Jul 21	63.06	+0.67
Aug 21	58.43	+0.96
Sep 21	55.62	+1.18
CBOT soybeans ¢/bushel		
May 21	1,560.25	-10.75
CBOT soybean meal \$/t		
May 21	416.20	-9.80

Ethanol forward curves		¢/USG
	Chicago	New York
May	230.00-232.00	245.00-247.25
Jun	225.50-227.50	240.25-242.50
Jul	221.50-223.50	234.75-237.00
Aug	217.50-219.50	229.25-231.50

Blendstocks					¢/USG
	Basis		Differential	Price	±
Alkylate					
NY barge ex duty	Jun		+2.50/+3.00	212.65-213.15	+2.52
Houston	87 NLT 9	RVP	+14.00/+15.00	218.28-219.28	+3.27
Raffinate					
Houston	87 NLT 9	RVP	-40.00/-38.00	164.28-166.28	+3.27
Reformate					
NY barge ex duty	Jun		+15.50/+16.00	225.65-226.15	+2.52
Houston	87 NLT 9	RVP	+35.50/+36.50	239.78-240.78	+3.27
МТВЕ					¢/USG
				Price	±
fob USGC				222.00-223.00	+3.50
Carbon	_	_	_		
Vintage	Del	Bid	Ask	Price	±
viillage	Dei	ЫU	ASK	Frice	I
California carbon a		, ,			
2021	May 21	18.68	18.70	18.69	+0.04
2021	Dec 21	19.33	19.39	19.36	+0.01
2022	Dec 22	20.38	20.44	20.41	+0.01
CCA price ¢/USG		Winter		Summer	
Regular CARBOB		15.02	+0.03	15.06	+0.03
Month index Apr				14.63	+0.18
Midgrade CARBOB		15.02	+0.03	15.03	+0.04
Month index Apr				14.59	+0.17
Prem CARBOB		15.03	+0.03	15.00	+0.04
Month index Apr				14.57	+0.18
ULSD				19.13	+0.04
Month index Apr				18.58	+0.22
Quebec carbon pri	ce for gas	soline, die	sel CA¢/l		
Gasoline				5.15	+0.01
Gasoline month inc	lex Apr			5.09	+0.03
Diesel				6.40	+0.01
Diesel month index	•			6.33	+0.04
California low-carb	on fuel c		,		
LCFS		178.50	179.50	179.00	+1.50
VWA MTD					na
Number of trades I	NTD				0
Volume MTD			•		0
Oregon low-carbon	fuel crea				
LCFS		125.00	127.00	126.00	nc
California LCFS pre	emium pe	r carbon i	ntensity point ¢/		
Ethanol				1.46	+0.01
Biodiesel				2.26	+0.02
	t for gace	ling digs	el #//ISG		
California LCFS cos CARBOB	it for gase	nine, uies	ct \$7050	19.41	+0.16

ULSD

Crude CI deficit Carbob

Crude CI deficit diesel



21.16

0.88

0.99

+0.18

+0.01

+0.01

The Argus RVO increased by 0.62¢/USG to 18.62¢/USG. The market firmed as the US Environmental Protection Agency asked the US 10th Circuit Court of Appeals to deny biofuel blending waivers approved in January by the outgoing Trump Administration.

Current year ethanol D6 credits traded between $153.5 \notin$ / RIN and $156.5 \notin$ /RIN, rising by $5.5 \notin$ /RIN to $155 \notin$ /RIN. Prior year credits rose by $6.25 \notin$ /RIN to $154.5 \notin$ /RIN after trading at that level.

Biomass-based diesel D4 RIN credits with 2021 vintage traded between $162 \notin /RIN$ and $163.5 \notin /RIN$. The high was set at $165 \notin /RIN$ as bids and offers appeared at $164 \notin /RIN$ and $166 \notin /RIN$ late in the session. Prices firmed by $5.75 \notin /RIN$ to $163.5 \notin /RIN$ from Friday's levels.

Current year cellulosic biofuel D3 credits were flat as volumes traded between 298¢/RIN and 299¢/RIN.

Biodiesel

Stronger biomass-based diesel D4 RINs and Low-Carbon Fuel Standard (LCFS) credits in California pressured B99 biodiesel differentials in the region on Monday.

Offers for B99 biodiesel in northern and southern California with June timing emerged around Nymex -95¢/USG, pressuring differentials down by 5¢/USG in San Francisco and by 10.25¢/ USG in Los Angeles.

The 2021 vintage D4 RIN credits firmed by $5.75 \notin$ /RIN to $163.5 \notin$ /RIN, as the US Environmental Protection Agency asked the 10th US Circuit Court of Appeals to deny biofuel blending waivers approved in January by former president Donald Trump's administration.

The heating oil/soybean oil (HOBO) spread - a measure of the profitability of producing biodiesel from soybeans - rose by $4 \epsilon/USG$ to $-317 \epsilon/USG$.

B99 differentials in Houston and New York Harbor fell by 0.25¢/USG to Nymex -3.63¢/USG and Nymex -6.13¢/USG, respectively.

Argentina

In Argentina, export differentials for soybean oil cargoes fell on Monday, while SME prices rebounded.

The country's larges biodiesel producers are warning they will not be able to fulfill contracts for supply to the EU because of roadblocks that thwarting their access to methanol feedstock.

Ethanol deals			
Grade	Timing	Price	Volume
Chicago Argo	8-18 May	233.00	5
	8-18 May	233.00	5
	8-18 May	233.00	5
	8-18 May	233.60	5
	8-18 May	233.70	5
	8-18 May	233.70	5
	8-18 May	234.00	5

RINS deals			
Grade	Timing	Price	Volum
Biodiesel	2021	162.00	100
	2021	162.50	200
	2021	163.00	50
	2021	163.00	200
	2021	163.50	75
	2021	163.50	100
Cellulosic	2021	298.00	32
	2021	298.00	100
	2021	299.00	2
	2021	299.00	30
	2021	299.00	35
Ethanol	2020	154.50	78
	2021	153.50	30
	2021	153.50	50
	2021	153.50	50
	2021	154.00	50
	2021	154.00	50
	2021	154.00	100
	2021	154.00	100
	2021	154.00	100
	2021	154.00	100
	2021	155.00	50
	2021	155.00	50
	2021	155.00	50
	2021	155.00	50
	2021	156.00	50
	2021	156.00	100
	2021	156.50	50

May differentials decreased by $0.8 \notin lb$ to CBOT -7.9 $\notin lb$. On the June-July strip, discounts reached CBOT -8 $\notin lb$.

Paper markets rose 0.67¢/lb to 63.06¢/lb for July contracts. Luis Zubizarreta, president of Argentina's biodiesel chamber Carbio told *Argus* that biofuel exports to the EU have not



been hampered because the authorities have cleared roads and shipments of inputs are normalized.

Biodiesel markets increased as RED product climbed \$57/t to \$1,242/t.

California carbon

California Low-Carbon Fuel Standard (LCFS) credits moved higher to start the week, extending last week's gains.

Second quarter credits closed at \$179/metric tonne today, \$1.50 higher on the day. A deal was heard at this level early in the session, and offers stood at \$179.50/t in the afternoon.

The upward move surprised some market participants, as it comes after Friday's release of the latest program data, which showed the bank of LCFS credits grew in the four quarter of 2020.

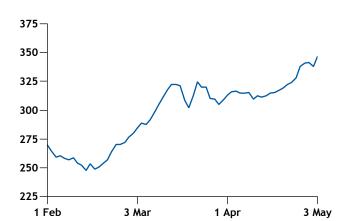
From October-December, the LCFS generated just over 4.3mn t of credits, a program high, and just shy of 4mn deficits, growing the bank by more than 373,000t to about 8.1mn t.

Third quarter 2021 credits rose by \$1 to \$177.50/t, while fourth quarter 2021 credits rose by \$1.50/t to \$177.50/t.

First quarter 2022 credits stood at \$177.50/t today, \$2 higher from the prior session. Bids and offers stood at \$176/t and \$179/t in the session.

California Carbon Allowances (CCAs) inched up today to hit a fresh program high.

SME Houston fob B100 vs Gulf Coast ULSD



CCAs for May 2021 were assessed at \$18.69/metric tonne, 4¢ higher than the prior session, and traded three times for 145,000t.

CCAs for December 2021 inched 1^{e} higher to \$19.36/t. The contract traded 32 times for roughly 760,000t in total.

CCAs for December 2022 also rose by $1 \mbox{\pounds}$ to $20.41 \mbox{\pounds}$ on higher bids and offers, with no deals struck on this contract.

The market has been rising amid bullish expectations for next year's auction reserve price and as the US recently pledged to cut its greenhouse gas emissions to half of 2005 levels by the end of the decade. That new commitment forms the basis of the US' new nationally determined contribution, or emissions pledge, under the Paris climate agreement, which it has submitted to the UN.

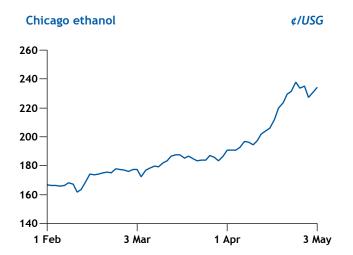
Blending components

The US Gulf coast gasoline blendstock cash differentials were stable in the US Gulf coast on Monday though outright prices rose.

Outright prices were up as the US Gulf coast gasoline pipeline mean (PLM) trading basis rebounded on the back of a stronger Nymex RBOB basis.

Reformate was assessed at PLM +36¢/USG, though some were pegging values lower.

Raffinate was assessed at PLM -39¢/USG. Alkylate remained at PLM +14.5¢/USG.



¢/USG



Vacuum gasoil

VGO cash differentials to Brent crude were stable Monday without firm, specific negotiations or verified deals.

Healthy fluid catalytic cracker (FCC) margins prevailed, but assumptions of ready barge and cargo supplies weighed on the market.

A major whose FCC at its Mississippi River-area had been on an extended outage had been a prompt low sulphur VGO barge seller. The trading status of the said refiner was unclear Monday, with conflicting information noted in the market.

The major was initially heard offering another barge out of the River-vicinity refinery, but this was subsequently disputed.

The prompt low sulphur VGO barges were initially tagged as less than generic quality, but subsequent offers late last week had been pegged on par with generic low sulphur specifications. The said sweet VGO barges had been heard trading in the Brent +\$3s/bl range on a delivered Gulf coast basis, bringing low sulphur values below high sulphur VGO.

Mention of low sulphur VGO barges at July Brent +\$4.25/ bl and high sulphur VGO barges above July Brent +\$5/bl on a delivered basis were not supported by firm deals and discussions on Monday.

High sulphur VGO demand was more skewed to cargo activity, with virtually no barge discussions detected.

Recent ready supplies of high sulphur VGO cargo volumes from Saudi Arabia seemed to have filled emerging requirements at the Gulf coast. These cargo trades had been well circulated in the low \$5s/bl premiums to July Brent.

Saudi Arabia has so far tendered to sell about 1.5mn bls of high sulphur VGO loading in May. A tender offering two 500,000 bl cargoes of 2.18pc sulphur VGO loading separately on 14 and 24 May closed last week. Another high sulphur VGO cargo loading 8 May was awarded earlier in April.

Reports that a major was looking to purchase a high sulphur VGO cargo for end-May delivery circulated Monday, but

CME Nymex		
	Price	±
WTI crude \$/bl		
Jun	64.49	+0.91
Jul	64.41	+0.93
Aug	64.10	+0.96
Henry Hub natural gas \$/mmBtu		
Jun	2.966	+0.04
Jul	3.014	+0.04

	oil Gulf coast Basis	Differential	Pric
Differential to			
	•	.7.75/.9.50	72 24 72 0
0.5% cargo	Jun	+7.75/+8.50	72.24-72.9
0.5% barge	Jun	+6.50/+7.25	70.99-71.7
1.0% cargo	Jun	+7.75/+8.75	72.24-73.2
1.0% barge	Jun	+6.75/+7.50	71.24-71.9
2.0% cargo	Jun	+7.75/+8.75	72.24-73.2
2.0% barge	Jun	+6.75/+7.50	71.24-71.9
Differential to	lce Brent \$/bl		
0.5% cargo	Jul	+4.68/+5.43	72.24-72.9
0.5% barge	Jul	+3.43/+4.18	70.99-71.7
1.0% cargo	Jul	+4.68/+5.68	72.24-73.2
1.0% barge	Jul	+3.68/+4.43	71.24-71.9
2.0% cargo	Jul	+4.68/+5.68	72.24-73.2
2.0% barge	Jul	+3.68/+4.43	71.24-71.9
Differential to	70:30 87 conv/heating oil	¢/USG	
0.5% cargo		-21.80/-20.01	172.00-173.7
0.5% barge		-24.78/-22.99	169.02-170.8
1.0% cargo		-21.80/-19.42	172.00-174.3
1.0% barge		-24.18/-22.40	169.62-171.4
2.0% cargo		-21.80/-19.42	172.00-174.3
2.0% barge		-24.18/-22.40	169.62-171.4
Differential to	70:30 87 conv/ULSD ¢/US	G	
0.5% cargo		-29.38/-27.60	172.00-173.7
0.5% barge		-32.36/-30.57	169.02-170.8
1.0% cargo		-29.38/-27.00	172.00-174.3
1.0% barge		-31.76/-29.98	169.62-171.4
2.0% cargo		-29.38/-27.00	172.00-174.3
2.0% barge		-31.76/-29.98	169.62-171.4
70:30 formula	s ¢/USG		
	borne/heating oil	+3.18	193.26-194.3
87 conv water	-	+3.19	201.29-201.4
Nanhtha ba	rge Gulf coast	_	
NEDHUIE DE	ree Guil Coasi		

naphana bai	3			
		Basis	Differential	Price
Heavy (40 N+A)¢/USG	87 NLT 9 RVP	-45.00/-43.00	160.53-162.53
Heavy (40 N+A) \$/t			571.49-578.61
Full range ¢/U	SG	87 NLT 9 RVP	-49.00/-48.00	156.53-157.53
Full range \$/t				568.20-571.83
LSR/LV ¢/USG		C5	+1.00/+2.75	142.00-145.75
LSR/LV \$/t				565.16-580.09
Natural gasolir	ne ¢/USG			141.00-143.00
Natural gasolir	ne \$/ <i>t</i>			592.20-600.60
Light cycle o	oil			¢/USG
	Basis	Differential	Price	±
0.5% sulphur	HO pipe	+4.00/+4.50	169.19-169.69	+2.70
2.0 % sulphur	HO pipe	+3.75/+4.25	168.94-169.44	+2.70



no specific discussions were identified.

July Brent crude rose by \$0.8/bl to \$67.56/bl on Monday, \$0.42/bl above the August Brent settlement and \$3.07/bl above the June Nymex WTI.

Light cycle oil (LCO) spot supply has improved with at least two refiners reported on the sell side. Offers were heard down to around $4.5 \notin$ /USG premium to the Gulf coast pipeline heating oil (GC PL HO) level on a delivered Gulf coast basis for 0.5pc sulphur material.

The lower LCO differentials were attributed to burgeoning renewable volume obligation (RVO) numbers. The RVO rebounded to $18.62 \notin/USG$ on Monday, gaining $0.62^{-1} \notin/USG$ from last Friday's assessment.

The ultra-low sulphur diesel (ULSD) premiums to heating oil inched wider to 25.275¢/USG upon higher cash prices for both distillates.

Naphtha

Selling interest continued to outpace demand in the N+A naphtha markets Monday, but the dominance of interest in premium qualities with lower sulphur masked values for generic barrels.

The conventional gasoline pricing basis was strong to kick off the trading week as well, which kept bids at low levels while healthy margins encouraged strong selling interest.

Cash prices for the Gulf coast waterborne conventional 9 RVP (GC WB M2) gasoline were up by 3.27¢/USG Monday alongside a 2.52¢/USG increase in the June Nymex RBOB basis.

Export interest was still visible, with a 38,000t cargo of naphtha seen on subjects for 8 May loading out of the Gulf coast to the Asia Pacific.

On the barge front, splitter-quality heavy virgin naphtha (HVN) was heard available, but not specifically offered.

Premium quality HVN was offered from GC WB M2 -41¢/USG to the low GC WB M2 -30s¢/USG range on a delivered basis. Business was heard done in the upper range for good quality HVN with low RVP, low sulphur and high octane. Details were kept confidential.

A major sought bids for a 56.8 API naphtha barge with 210 IBP, 202ppm sulphur and +30 color for 5-7 May delivery. The best bid for this barge was heard at GC WB M2 $-48 \notin$ /USG.

Another major offered a 45 N+A naphtha barge with 58.6 API, 160 IBP, 2.2 RVP, 104ppm sulphur as well, but no bid-ask values were viewed as of Monday afternoon.

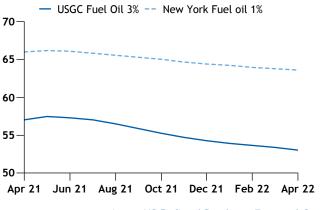
Residual fuel oil		
	Price	:
Waterborne* \$/t		
NYH 0.5% fuel oil delivered	485.25-488.62	+5.3
USG 0.5% fuel oil fob	485.25-488.62	+5.3
New York waterborne \$/bl		
0.3% low pour	77.02-77.30	+1.4
0.3% high pour	78.04-78.50	+1.5
0.5%	72.06-72.56	+0.8
1.0%	67.08-67.60	+1.3
3.0%	60.42-60.62	+1.2
Gulf coast waterborne \$/bl		
0.5%	72.06-72.56	+0.8
3.0%	58.02-58.32	+1.1
RMG	58.42-58.62	+0.7
0.5% vs Brent \$/bl		
NYH	4.50-5.00	0.0
USGC	4.50-5.00	0.0
0.5% vs WTI \$/ <i>bl</i>		
NYH	7.57-8.07	-0.1
USGC	7.57-8.07	-0.1

US Gulf are assessed independent of each other. They are not directly correlated by fixed conversion factors due to density variables.

Marine gasoil			¢/USG
Jun	Differential	Price	±
New York 0.5%	-25.50/-24.50	169.69-170.69	+2.95
Bunker fuel			\$/t
		Price	±
		380cst	
New York		386.00-391.00	-20.50
Philadelphia		411.00-416.00	-20.50
Houston		387.50-392.50	-2.00
Los Angeles		416.00-430.00	+3.00
Los Angeles 0.5%S		501.50-506.50	+2.50
Seattle		393.50-398.50	+3.00

Residual fuel oil swaps

¢/USG



⁻ Argus US Refined Products Forward Curves



Bids and offers for heavy N+A were loosely pegged in the GC WB M2 -47¢/USG by -41¢/USG range, bearing the same midpoint as Friday's assessment.

Full-range N+A naphtha activity was muted Monday. The same major that was offering the 56.6 API barge had been offering 63.2 API, 92.2 IBP, 43 N+A, +23 color and 99ppm sulphur material late last week. The full-range offer was not seen refreshed Monday.

Light naphtha demand was also skewed to lower sulphur barrels. Light sour naphtha buyers and sellers were more than 2¢/USG apart, but seemed unable to bridge the gap.

High sulphur Targa was initially heard bid flat to natural gasoline (C5) against a C5 +2.75¢/USG offer. Buying interest for the generic sour grade was subsequently heard at C5 +1¢/USG but no trade was confirmed done.

Two refiners that had been light naphtha sellers were still in the market. One refiner was offering a 200ppm sulphur light naphtha barge on Monday, but no specific offer or bids were revealed.

Fuel oil

North American residual fuel oil barge values made gains alongside crude oil futures Monday despite weak wholesale demand reported in both US bunkering hubs.

Active bunkering interest emerged in the US Gulf coast by Monday morning, a surprising uptick after weeks of low ship flows. Vessel traffic around Port Arthur, Texas, was recorded early in the day, with movement into various facilities in areas like Beaumont and Port Neches.

Ample supplies of wholesale fuel oil lead four counterparties reportedly interested in movement in the southeastern Texas region. Market participants observed the trading interest as a sporadic pop in demand. Although wholesale supply was able to match bunkering interest, barge demand remained weak on the day.

One barge trade of low-sulphur fuel oil (LSFO) came to light at \$481/t on a fob Houston basis at an unknown API gravity, indicating the first confirmed trade in the Gulf coast since 26 April. Low liquidity was attributed to well-stocked buyers reserving interest prior to the end of the month.

At least three suppliers of slurry oil or residual fuel oil blending components appeared in Monday's thin market. No fresh details of negotiations were available to this end.

LSFO cash differentials to July ICE Brent crude were con-

Paria posted prices, Trinidad								
	28 Apr	21 Apr	19 Apr	13 Apr	18 Mar			
Gasoline 95r ¢/USG	240.00	230.00	237.00	232.00	227.00			
Gasoline 92r ¢/USG	235.00	225.00	232.00	227.00	222.00			
Jet/Kerosine ¢/USG	195.00	185.00	192.00	187.00	178.00			
Gasoil 0.1%S¢/USG	190.00	180.00	185.00	180.00	182.00			
Fuel oil \$/bl	69.00	70.00	72.00	66.00	70.00			

tinuously talked at a \$4.5-5/bl premium for a 20 API gravity on a fob Houston basis, in line with the prior session's values.

July ICE Brent crude gained to \$67.56/bl at settlement close, marking a \$0.8/bl increase from the previous trading day.

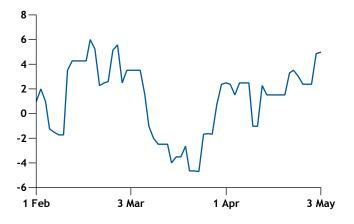
There were no new bids, offers or trades on 3.5pc highsulphur fuel oil (HSFO) in the Gulf coast Monday, after reports of dwindled supplies following one refiner's flurry of purchases last month. Outright HSFO prices rose with gains in Brent crude.

Gulf coast LSFO's premium to HSFO rose slightly to a 13.8/ bl spread, up 0.1/bl from the previous day.

US Gulf coast LSFO front-third month swaps narrowed to a \$0.15/bl backwardation Monday. HSFO front-third month swaps were \$1.18/bl backwards, potentially tracing front-month cash gains with tight supply.

The New York Harbor residual fuel oil market was subdued on the day. US east coast LSFO barges were consistently valued alongside the Gulf coast grade at July Brent +\$4.5-5/bl for a 20 API gravity.

Portland EPA ULSD vs San Fran EPA ULSD ¢/USG





Outright prices for New York Harbor 3pc sulphur fuel oil maintained a \$2/bl premium to Gulf coast HSFO despite thin physical activity on the heavy grade.

New York Harbor 1pc sulphur fuel oil front-third month swaps fell to a \$0.97/bl backwardation, the widest backwards spread since 17 February.

Marine fuels

Bunker demand picked up activity at the start of this week.

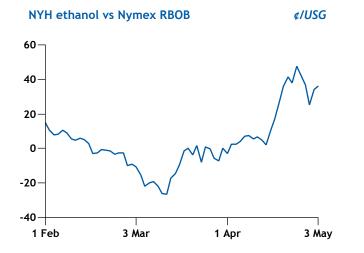
Houston demand was strong, with two ex-wharf deals and a delivered offer reported Monday. The first deal was for 700t of very low-sulphur fuel oil (VLSFO), which sold at \$470/t. The other was for 500t of VLSFO at \$470/t with 100t of marine gasoil (MGO) at \$560/t. A 200t MGO cargo was offered at \$567/t.

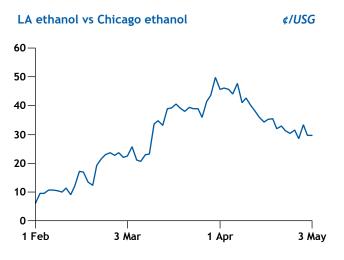
In New Orleans, 500t of VLSFO sold at \$505/t ex-wharf. At the same port, 100t of MGO sold ex-wharf at \$595/t.

A 1,150t cargo of MGO sold ex-wharf at \$591/t in New York. Indications were heard cheaper at \$585/t but no transactions were completed at this level.

There will be a 35,000t cargo of a dirty petroleum product, probably residual fuel oil, that will leave on tanker Silent from the Mississippi river. The delivery will depart on 14 May and will offload in Jamaica. The charterer for this shipment is Clark Oil, a subsidiary of trader Apex Oil.

West coast bunker demand was medium to soft to begin this week. At the port of San Diego, California, 225t of MGO was offered at \$775/t delivered. VLSFO and MGO in Los Angeles were quoted cheaper than \$540/t and \$650/t delivered. The Los Angeles VLSFO premium over the competing port of Singapore increased to \$36.50/t. Los Angeles VLSFO remained the cheapest on the North American west coast.







INFRASTRUCTURE NEWS

ExxonMobil locks out Beaumont union workers

ExxonMobil locked out about 650 union workers over the weekend at its 362,000 b/d refinery in Beaumont, Texas.

The facility continues to operate with supervisor or alternative staff after contract talks with UnitedSteelworkers Local 13-243 stalled.

ExxonMobil said it would move forward with the lockout after the union did not hold a vote on its contract offer. The union had requested a one-year extension of the previous fiveyear contract while talks continued.

"Over the past year, the company was perfectly willing to tell us we were essential as we performed our jobs through the Covid-19 pandemic, hurricanes, floods and, most recently, an unprecedented freeze," Local 13-243 president Darrell Kyle said. "Now it is rewarding our hard work and sacrifice by forcing us off our jobs."

By Elliott Blackburn

Marathon Galveston Bay has hydrotreater upset

An upset involving a hydrotreater increased flaring yesterday at Marathon Petroleum's 475,000 b/d Galveston Bay refinery in Texas City, Texas.

Increased flaring was reported at 6:57pm ET on 2 May, ac-

cording to a filing to state environmental regulators. Refinery crews isolated the issue, and flaring stopped two hours and 28 minutes later.

Hydrotreaters remove impurities such as sulfur from refinery streams.

Flaring event at Chevron Richmond refinery

A flaring event occurred yesterday at Chevron's 250,000 b/d refinery in Richmond, California.

Increased flaring was reported at 7:15pm ET, caused by a recycle compressor trip, according to a filing to state hazardous materials monitors.

Chevron did not comment on process units involved.

Hydrotreater work at Citgo Corpus Christi

Unplanned maintenance on a hydrotreater unit took place yesterday at Citgo's 157,500 b/d refinery in Corpus Christi, Texas.

The refiner said a failed clamp on the unit resulted in increased emissions at 1:30pm ET on 2 May. Refinery crews shut down the unit, repaired the clamp on the reactor outlet, and restarted the unit, per a state environmental regulatory filing.

Hydrotreaters remove impurities such as sulphur from refinery streams.

INDUSTRY NEWS

US Gulf coast product exports recover

US Gulf coast waterborne gasoline and diesel exports recovered in April to a four-month high amid a rise in refinery throughput and stout demand in Mexico.

April waterborn gasoline and diesel loadings from the US Gulf coast rose by 19pc from March to 1.34mn b/d, Vortexa estimates show.

Waterborne diesel exports were particularly strong at around 800,000 b/d, up from 610,000 b/d and marking the highest level since October last year.

Crude inputs at Gulf coast refineries rose to 8.46mn b/d during the week ended 23 April, according to Energy Information Administration data, exceeding levels seen before the February winter storm and marking the highest level since late March 2020. Throughputs rose along with higher margins. Gulf coast refining margins, measured against WTI Houston crude based on a 3-2-1 yield, averaged \$17.70/bl in April, up from \$16.70/bl in March and \$13.88/bl in April 2019.

But higher crude throughputs hid some of the secondary unit outages that limited gains in gasoline production and exports.

April saw a series of heavy fluid catalytic cracker (FCC) outages across several Gulf coast refineries, which in turn prompted a rare rise in imports into the region. April waterborne gasoline loadings from the US Gulf coast hit 540,000 b/d, less than 4pc higher from March.

On the demand side, Mexico drove much of the rise in Gulf coast exports. A fire shut Mexico's 285,000 b/d Minatitlan refinery in early April, with repairs expected to last through early July at one of the country's more advanced facilities. In addition, power supply issues may have taken the 330,000 b/d Salina Cruz refinery, Mexico's largest, offline during the week ended 23 April.

US Gulf coast gasoline and diesel exports to Brazil also



rose from low levels in February and March, though importers in Brazil have been conservative in cargo purchases, not least because the growing spread of Covid-19 cases there continued to cap demand. Moreover, US fuel suppliers to Brazil face increasing competition from sellers in India, the Middle East and Europe.

But persistent strength in US renewable volume obligations (RVO) meant wider discounts for delivered prices last week. RVO measures the cost of compliance with US renewable fuel mandates, and hit multiple record highs last month while continuing to rise in May.

Argus-calculated RVO averaged 16.7¢/USG in April, or just over \$7/bl.

By Chunzi Xu

Drop last-minute fuel mandate waivers: EPA

Waivers of renewable fuel blending mandates granted in the final days of former president Donald Trump's administration will not withstand a legal review, the US Environmental Protection Agency (EPA) told a federal court today.

EPA asked the 10th US Circuit Court of Appeals to cancel three exemptions of the Renewable Fuel Standard (RFS) granted in January to US independent refiner Sinclair Refining. The exemptions would not pass a legal analysis today, and it would not meet the court's criteria for offering such exemptions, the agency said in today's filing.

Sinclair did not respond to a request for comment. The January exemptions included two for its Wyoming refineries in 2019 and one for 2018.

RFS requires that refiners, importers and other companies to each year ensure minimum volumes of renewables blend into the gasoline and diesel they add to the US transportation fuel supply. Uncertainty over those mandates has helped to this year lift prices for credits used to prove compliance with the program to their highest levels in a decade of trading.

A 10th Circuit ruling early last year helped fuel that climb. The court determined that only refineries that had continuously received exemptions allowed for facilities processing less than 75,000 b/d in a given year could remain eligible for the waivers. That slashed eligibility from dozens of refineries under Trump's administration to just two.

Small refineries make up about 10pc of US refining capacity, but the waivers held an outsized influence over the market for credits used to prove compliance with the program, called renewable identification numbers (RINs). Surprise exemptions freed up RINs for other, larger buyers, and drove compliance costs down.

Refiners appealed the 10th Circuit decision to the US Supreme Court, which heard arguments on the decision in April. A decision in that case could arrive this summer. By Elliott Blackburn

RIN gains push RVO to new all-time high

RIN credits rose across nearly all D types today, spurring the *Argus* Renewable Volume Obligation (RVO) to a new all-time high for the second session in three days.

The Argus RVO increased day on day by 0.62 ¢/USG to 18.62 ¢/USG, exceeding its previous all-time high of 18.37 ¢/USG set on 29 April.

Support stemmed from the heating oil-soybean oil (HOBO) spread widening before narrowing on the day by 4¢/USG to -317.1¢/USG. Additional support came as the US Environmental Protection Agency requested the US 10th Circuit Court of Appeals to nullify several small refinery exemptions approved in January.

Current year ethanol D6 credits increased by $5.5 \notin /RIN$ to $155 \notin /RIN$, their highest recorded level.

Biomass-based diesel D4 RIN credits increased by 5.75¢/RIN to 163.5¢/RIN, their highest since late September 2011. By Thom Dwyer

Colonial IHT incentives extended through 2021

Colonial Pipeline has extended tariff incentives through year's end for shippers moving segregated products on its Intra Harbor Transfer (IHT) service in the New York Harbor market.

The program applies a $25 \notin /bl$ incentive for shippers who originate at least 5,000 bl of products within the New York and New Jersey system, without needing to pass through the system's storage tanks. Colonial started the incentive program last September with an original end date of 31 December, but later extended the program through this month.

Colonial's 5,500-mile (8,851km) pipeline system connects US Gulf coast refiners and importers to the New York Harbor market.

By Jason Metko

California GHG bills at 'critical juncture'

A pair of California bills that would require businesses to disclose their greenhouse gas (GHG) emissions and climaterelated financial risk are nearing a key legislative deadline to



stay alive in the 2021 session.

The Climate Corporate Accountability, SB260, and Climate-Related Financial Risk SB 449 bills have both been approved by the relevant policy committees and now await action in the Senate Appropriations Committee.

Sponsored by Democratic state senators Scott Wiener and Henry Stern (D), the two bills must win approval in that committee by 21 May to stay alive.

SB260 would require companies that generate more than \$1bn/yr in gross revenue to report their annual GHG inventories, including for fuel combustion, as well as the emissions generated by electricity usage and by entities along their supply chains.

The bill directs the state Air Resources Board to develop regulations to enforce the mandate, with companies required to use third-party auditors to approve their disclosures.

SB 449 would require companies with more than \$500mn in revenue to prepare annual reports on their climate-related financial risk by the end of next year.

Both proposals are at a "critical juncture," Stern told *Argus* today. The bills will either come to a vote in the Appropriations Committee or "slip off" of the agenda in the next two to three weeks. There are hurdles to overcome in the short-term, with significant lobbying against the legislation, he said.

Companies that have publicly expressed support for cutting GHG emissions and disclosing climate-related financial risk are opposing state and federal efforts behind the scenes, Stern said.

"In California they tend to put a greener face on it and say that the federal administration will act, so there is no need for California to act - but at the same time they are lobbying federally to stop it," he said.

There has been a swirl of activity from technology companies to financial institutions that have committed to carbon neutrality, often aligning net-zero goals with the Paris climate agreement. But at the moment, there is no mandatory climate risk disclosure.

This California legislation comes as federal action on GHG emissions reporting has accelerated since President Joe Biden took office.

The Securities and Exchange Commission in March significantly ramped up its activity on environmental, social and corporate governance (ESG) and carbon disclosure. The commission is seeking feedback on best practices for carbon disclosure, and it has announced the creation of a climate and ESG task force in its division of enforcement, which will identify ESG-related misconduct.

The US Senate confirmed Gary Gensler as the new chair of the SEC, where he is expected to pursue more regulatory oversight and climate disclosure from publicly traded companies.

If the two California bills make it out of committee, they will go to the Senate floor, where they have to pass by 4 June.

Argus Assessment Rationale Database

For prices used in financial benchmarks, Argus publishes daily explanations of the assessment rationale with supporting data. This information is available to permissioned subscribers and other stakeholders.

Subscribers to this report via Argus Direct or MyArgus may access the database here.

Other subscribers may request access here or contact us by email at sales@argusmedia.com.

ANNOUNCEMENT

Argus successfully completes annual losco assurance review

Argus has completed the ninth external assurance review of its price benchmarks covering crude oil, products, LPG, petrochemicals, biofuels, thermal coal, coking coal, iron ore, steel, natural gas and biomass benchmarks. The review was carried out by professional services firm PwC. Annual independent, external reviews of oil benchmarks are required by international regulatory group losco's Principles for Oil Price Reporting Agencies, and losco encourages extension of the reviews to nonoil benchmarks. For more information and to download the review visit our website https://www.argusmedia.com/en/aboutus/governance-compliance



They would than head to the state Assembly for consideration. The legislature adjourns on 10 September. By Jessica Dell

California focuses on new climate initiatives

California is embracing fresh policies that aim to phase out oil production and consumption, with the support of a new administration in the White House that sees the state as a partner in its push to slash US greenhouse gas (GHG) emissions.

California governor Gavin Newsom last month ordered a halt to the issuing of new permits for hydraulic fracturing (fracking) by 2024 and ordered state officials to consider ways to end oil production in the state by 2045. California's crude production fell to 394,000 b/d last year from 442,000 b/d in 2019, continuing a decades-long decline from about 1mn b/d in the 1980s. Any ban on fracking could end up being mostly symbolic. The state is not highly reliant on the practice, and it has approved just 12 fracking permits this year. But oil groups are predictably critical. "Newsom has chosen to ignore science, data and facts," Western States Petroleum Association president Catherine Reheis-Boyd says.

But while California looks like an outlier for US oil output – other oil-producing states have defended the sector – its trendsetting role in curbing demand is set to get back on track. President Joe Biden has proposed reinstating the state's power to independently set vehicle emission – and effectively, fuel economy – rules that a dozen other states follow. This provides a path for an executive order Newsom signed last year that would essentially prohibit in-state sales of gasoline-powered passenger cars and trucks by 2035, by requiring entirely zeroemission vehicles.

California has been a leader in US emissions regulations for 50 years, in part out of necessity because of severe smog caused by its unique geography. The state holds a special carveout under the Clean Air Act that lets it adopt strict rules before the federal government, and it moved early on climate legislation with a smorgasbord of programmes that includes a carbon cap-and-trade system and a first-in-the-nation low-carbon fuel standard for liquid fuels.

Former President Donald Trump tried to hobble those efforts. He pursued litigation to block California from linking its cap-and-trade programme to the Canadian province of Quebec. Trump also stripped California's power to set vehicle GHG targets and began an antitrust probe after the state made deals with automakers to keep fuel-economy gains through to 2026. But the Biden administration is quickly scuttling those efforts and vowing to work with the state towards the same climate goals. And Newsom's renewed focus on climate could shore up support from the left — which has pushed for aggressive action on climate and reducing the state's reliance on oil — as he faces a Republican-led recall election this autumn.

Balance of power

The lifting of federal limits could free California to take a greater role in resolving the technical and logistical challenges of moving to net zero emissions — a goal Biden wants the US to reach in the power sector by 2035 and economy-wide by 2050. California is attempting to address challenges running its grid during periods of high demand in the summer — a task made difficult by its reliance on intermittent renewables and the threat of fires from ageing power transmission lines.

The White House is trying to open federal coffers to build projects needed to support its climate goals, even before Congress considers Biden's proposal for a \$2 trillion green-heavy infrastructure programme. The Department of Energy has identified up to \$42bn in existing federal programmes that it could tap to support its target of building 500,000 charging stations for electric vehicles. And it plans to make up to \$8.3bn in loans available to build out electric transmission lines — a key component to integrating wind and solar power with the rest of the grid. The Department of Transportation last month issued new guidance to help existing rights-of-way for highways to become conduits for transmission lines. By Chris Knight

by Chris Knight

US biodiesel capacity falls, RD imports jump

US biodiesel production capacity fell in February from a year earlier as renewable diesel imports spiked, according to data from the Energy Information Administration (EIA).

Biodiesel production capacity on an annualized basis was 2.4bn USG in February, down by 4.8pc from a year earlier and unchanged from January's revised data.

US imports of renewable diesel surged in February to 741,000 bl, up by 80pc from a year earlier. Finnish biofuels producer Neste accounted for all of the February imports, shipping renewable diesel from its Singapore facility to Los Angeles and San Francisco in California. Renewable diesel is a leading source for Low-Carbon Fuel Standard (LCFS) credits in California, making it a favorable market for biofuel shipments.

Renewable diesel ending stocks increased to 6.2mn bl in the week ending 23 April, up by 12pc from February 2020.

US imports of biodiesel fell in February to 263,000 bl, down by 13pc from a year earlier.

Feedstocks used for biofuels in February were bleached fancy tallow, canola oil, choice white grease, distiller's corn oil, poultry fat, soybean oil, yellow grease, and others. Soybean oil made up 48pc of the 1.14 bn lbs feedstock consumption in February, yellow grease was 17pc and distiller's corn oil was 14pc, while the other feedstocks accounted for less than a quarter of total consumption.

By Jena Gobel and Jamuna Gautam

US airlines lost \$35bn in 2020

US airlines saw a net loss of \$35bn in 2020 amid the Covid-19-induced downturn in air travel, down from a net profit of \$14.7bn in 2019, according to US Bureau of Transportation Statistics (BTS) data.

Operating revenues fell by 61pc, or \$119bn, in 2020 versus the year before. Airlines found some relief in lower operating expenses, which were down by approximately 30pc, or \$52bn, year over year to \$123.8bn.

The biggest loss of revenue was from the reduction in fares, reported at just under \$50bn in 2020, down from \$145bn in 2019.

Travel restrictions stemming from the Covid-19 pandemic began to affect US airline travel in mid-March 2020.

Passenger numbers as reported by the US Transportation Security Administration (TSA) fell to a minimum in April 2020 at just 4pc of the previous year's levels.

Domestic airlines have so far given a mixed outlook for recovery. Southwest Airlines, a predominantly domestic airline, expects capacity to be near 2019 levels by June, but says demand is "inconsistent by region". American Airlines, which has both domestic and international routes, predicts capacity through midsummer to trail 2019 levels by as much as 25pc.

The International Air Transport Association (lata) recently revised estimates lower for air traffic recovery, forecasting that 2021 worldwide travel will recover to 43pc of 2019 levels this year. Ongoing travel restrictions worldwide may mean an uneven recovery by region and by country. By Wendy Dulaney

US factory activity eases from historic highs

Growth in US manufacturing fell in April from a near 37-year high the prior month as factories struggled to meet demand amid shortages of parts and materials as the economy accelerates out of the Covid-19-induced slump.

The factory purchasing managers' index came in at 60.7 in April, down from 64.7 in March, according to the Institute for Supply Management's survey. The production index fell to 62.5 from 68.1 and new orders fell to 64.3 from 68. Readings over 50 signal growth while those below signal contraction.

Companies surveyed "continue to struggle to meet increasing rates of demand due to coronavirus impacts limiting availability of parts and materials," ISM said. "Recent record-long lead times, wide-scale shortages of critical basic materials, rising commodities prices and difficulties in transporting products are continuing to affect all segments of the manufacturing economy."

Backlog of orders index rose to 68.2 from 67.5 while the supplier delivery index fell by 1.6 to 75. The employment index fell by 4.5 to 55.1. The prices index rose by 4 to 89.9.

New export orders rose by 0.4 to 54.9 while the import index fell by 4.5 to 52.2.

The headline index fell below 50 in March, April and May last year, when the economy contracted at its fastest rate in decades amid the first Covid-19 lockdowns. Factory activity has since been accelerating. By Robert Willis

Pemex stops posting wholesale fuel prices

Mexico's state-owned Pemex has stopped publicly posting its wholesale gasoline and diesel prices after a legislative reform unwound transparency requirements set in the wake of the country's 2014 energy reform.

Pemex last posted gasoline and diesel prices for 30 April, and last posted wholesale jet fuel and fuel oil prices for 1 May on its public website. Pemex customers will only receive the prices directly, a buyer told *Argus*.

Mexico's congress last week passed a reform sent by the administration of President Andres Manuel Lopez Obrador to end so-called asymmetric laws aimed at curbing Pemex's decadeslong monopoly. Among these were requirements for Pemex to make public certain prices and discounts, unlike most suppliers in the market. The changes were also part of a drive for data transparency under the original reform.

The government argued that enough new competitors are in the market to end these transitory requirements, which were originally designed to lift once private-sector companies supplied at least 30pc of the combined offer of gasoline and diesel.

But Pemex supplied 87pc and 72pc of the gasoline and diesel





markets in 2020, respectively, and a similar share to date this year, Alejandra Palacios, head of Mexico's competition watchdog (Cofece) has said.

Pemex stopped publishing its wholesale prices publicly even though the reform has not yet appeared in the government gazette, which is when laws become official.

Pemex did not immediately respond to a request for comment.

"This is Pemex moving ahead of the legal schedule," energy lawyer Diego Campa said. "They are aware that the government will not sanction them."

The bill could still face legal challenges from private-sector companies, such as those which led to a suspension of a recent power-sector reform that favors state companies. Yet the most recent reform may not be open to the same type of legal challenge because of its narrow focus on one company, rather than a general law that applies to an industry, Campa said. Cofece may be the only body that can challenge the law, he said.

Another recently passed reform that makes it harder to obtain operating permits for the fuel market and easier to lose them could face more challenges in court because of its broader effects.

By Sergio Meana

Pemex March gasoline output at 3-year high

Mexican state-owned Pemex's gasoline production rose by 35pc in March from a year earlier to its highest level since April 2018.

Gasoline output hit 262,800 b/d last month, up by 5pc from the prior month of February, which had three fewer days than March.

Pemex's six refineries used slightly more than 50pc of their 1.615mn b/d of crude processing capacity in the third month of the year, up from closer to 30-40pc during 2020, according Pemex data.

Pemex's gasoline imports dropped by 54pc to 220,800 b/d compared with the same month of last year. Mexico only began implementing stricter Covid-19-related mobility restrictions in March 2020, and imports did not fall significantly until April 2020.

March 2021 imports dropped by 21pc from the prior month. Diesel production increased by 15pc to 142,100 b/d year on year, while Pemex's diesel imports fell by 45pc to 92,900 b/d from 149,300 b/d in March 2020.

But the ongoing outage at Pemex's 285,000 b/d Minatit-

lan refinery after a fire on 7 April could increase demand for imports. Full restart could take until early July, although some units could restart sooner, Pemex said. By Sergio Meana

Mexican manufacturing grows for second month

A key measure of Mexico manufacturing activity fell slightly in April, but remained in growth territory for the second straight month.

The Mexican Institute of Finance Executives (IMEF) manufacturing index fell to 50.3 last month from 51 in March. Readings over 50 signal growth while those below that level signal contraction.

The April data "suggests that economic activity continues to expand, now driven by a reactivation in services and retail," IMEF said today.

The production, employment and new orders components of the index came in above the 50 threshold, while inventory and product delivery sub-indexes indicated contraction.

In March, the indicator crossed above 50 for the first time since May 2019.

While the Mexican economy has struggled to recover from the Covid-19 pandemic, fiscal stimulus and stronger consumer demand in the US have buoyed exports.

Supply chain issues such as the global semiconductor shortage may keep hurting Mexico's manufacturing sector, and a weaker labor market could also continue to reduce household income and thereby domestic consumer demand, the institute said.

"While recent data appears to indicate greater dynamism in economic activity, there are still latent risks that call for caution," IMEF said.

Mexico's economy contracted by 2.9pc in the first quarter compared with the prior year, led by a deceleration in manufacturing, construction and services. GDP grew by 0.4pc in the first quarter compared with the previous period.

IMEF also noted that "political uncertainty may continue to hurt the prospects for investment" in Mexico.

A flurry of recent legislative moves are expected to affect private-sector companies. They include sidelining private power generators, making it easier to cancel operating permits along the fuel value chain and ending asymmetric limits on stateowned Pemex meant to open more space for competition. *By Jens Erik Gould*



Biodiesel wins big in Amazon power auction

Brazilian palm oil producer Brasil BioFuels (BBF) was the big winner in a tender offer last week to supply power to 23 isolated regions of the Amazon basin which aims to reduce power generation costs and emissions in remote regions of the country.

Palm oil biodiesel producer BBF won contracts to supply 10 regions in Para state and two areas in Rondonia state with thermoelectric plants that are powered by palm oil-based biodiesel. The power purchase agreements (PPAs) will begin in 2023. The PPAs for Rondonia state are for 180 months and the Para PPAs range from 28 to 46 months.

The company already has 10 biodiesel-fired thermoelectric plants operating in Rondonia state.

Last year, BBF acquired Para state palm oil producer Biopalma, making it the largest palm oil producer in Brazil. BBF is currently building a new biodiesel plant in Para state which is expected to begin operating in October, according to BBF chief executive Milton Steagall. The power stations are already operating, but currently use diesel as fuel, so they will need to be converted to use biodiesel.

BBF will be allowed to issue Cbio carbon credits from the plants as a result of the reduction of carbon emissions by substituting diesel for a renewable fuel.

Steagall said that process could be concluded by the end of this year, allowing the plants to begin operating more than a year ahead of schedule.

Steagall plans to continue to increase palm-based biodiesel production in the Amazon region, with the goal of building a bio-refinery to provide renewable fuels to the region, which has traditionally been dependent on fuels transported from other regions of the country.

In addition to the biodiesel projects, thermoelectric generation company Usina Xavantes won contracts for eight regions in two states. The company has 180-month PPAs to provide power to five isolated regions in Amazonas state using natural gas as feedstock. Usina Xavantes, controlled by local power investment company Oncorp, did not stipulate who would supply the natural gas for the plants. The company also won 60-month PPAs for diesel-fired plants located in three regions in Roraima state.

Rovema Energia won the 30-month PPAs to supply power to three isolated regions in Acre state which will use diesel as feedstock.

Later this month, the government plans to announce the timeframe for its third auction for remote regions of the country.

Low supply to buoy Brazil anhydrous premiums

Premiums used to index anhydrous ethanol contracts between sugarcane mills and fuel distributors are expected to be significantly higher this year than last year because of a drop in ethanol supplies in Brazil's main growing region, the center-south.

Premiums for anhydrous ethanol contracts over spot hydrous ethanol prices – negotiated in compliance with oil regulator ANP's resolution No. 67 – are still under negotiation, but market sources say that they should range between 13-15pc, higher than in recent years.

The average anhydrous premium to hydrous steadily declined in recent years, falling to 10.5pc in 2020 from 11pc in 2019 and from 11.5pc in 2018.

Anhydrous ethanol is blended with gasoline to power motor vehicles to meet Brazil's E27 mandate. Hydrous ethanol is also used as a standalone fuel for cars, and competes with gasoline at the pump.

Ethanol production in Brazil in the 2020-21 harvest reached 32.9bn liters, according to the National Supply Company (Conab). This year's harvest, which began in April and runs through next March, is expected to be smaller. Already, the harvest of the first two weeks was down by a quarter from a year earlier.

The 2021-22 sugarcane harvest will be more aimed at using the sugarcane crop as sweetener instead of as biofuel, since there is a greater demand for the sweetener abroad. The devaluation of the Brazilian real has also prompted mills to divert more cane away from biofuel and towards the production of sweetener. Exports of the sweetener benefit from the depreciation of the real to the dollar, which is down by nearly 20pc since February 2020, the last month before Covid-19 struck Brazil and pushed the economy into a recession.

Mills have capitalized on high sugar prices with a flurry of contracts signed in recent months, but a worse-than-expected drought has disrupted the harvest. Sugarcane, which is being harvested later than expected and in a smaller quantity, is being processed primarily to fulfill these contracts.

With less cane available for fuel production, mills are fetching higher prices for anhydrous ethanol, a trend which accelerated in the second half of 2020.

Earlier this year, the anhydrous ethanol supply scenario further tightened following the December end of tax-free import quotas for ethanol from countries outside the regional Mercosur trading bloc. This change, coupled with the depreciation of





Brazil's currency, effectively closed the arbitrage window for ethanol from the US, Brazil's main supplier.

Hydrous ethanol prices are also climbing in the center-south region due to low supply. The main factors contributing to the increase are the delayed start of the sugarcane harvest in the region; successive increase in wholesale gasoline prices and its knock-on effect on ethanol; along with the increased focus on the production of sugar and anhydrous ethanol.

The spot price of hydrous ethanol is the benchmark value used in the indexation of anhydrous contracts, so any increase in absolute terms has a cascading effect on the anhydrous outright price purchased under long-term contracts. *By Pedro Cirne*

ANNOUNCEMENTS

USMC RVP changes spring 2021

The following is a collection of upcoming RVP transitions slated for the US midcontinent markets.

Chicago market:

Beginning on 25 February, with the start of March's first cycle, the following grades will transition from 15 RVP to 13.5 RVP: Buckeye Complex regular CBOB (PA0018535), Buckeye Complex 91 conventional gasoline (PA0024865), West Shore/Badger pipeline regular CBOB (PA0006535), West Shore/Badger 91 conventional gasoline (PA002898), Wolverine Pipeline regular CBOB (PA0023270), and Wolverine Pipeline 91 conventional gasoline (PA0028415).

Beginning on 25 February, with the start of prompt assessment for March's first cycle, the following grades will transition from 15 RVP to 13.5 RVP: Buckeye Complex regular RBOB (PA0023268), Buckeye Complex Premium RBOB (PA0028413), West Shore/Badger regular RBOB (PA0002899), and West Shore/Badger premium RBOB (PA0007693).

 Beginning on 5 March, with the start of March's second cycle, the following grades will transition from 13.5 RVP to 9 RVP: West Shore/Badger regular CBOB (PA0018535) and West Shore/Badger 91 conventional gasoline (PA0002898).

 Beginning on 25 March, with the start of April's first cycle, the following grades will transition from 13.5 RVP to 9 RVP:
 Wolverine Pipeline regular CBOB (PA0023270) and Wolverine Pipeline 91 conventional gasoline (PA0028415). Beginning on 25 March, with the start of April's first cycle, the following grades will transition from 13.5 RVP to 8.8 RVP: Buckeye Complex regular CBOB (PA0018535) and Buckeye Complex 91 conventional gasoline (PA0024865).

Beginning on 25 March, with the start of April's first cycle, the following grades will transition from 13.5 RVP to Region 2: Buckeye Complex regular RBOB (PA0023268), Buckeye Com-





ANNOUNCEMENTS

plex Premium RBOB (PA0028413), West Shore/Badger regular RBOB (PA0002899), and West Shore/Badger premium RBOB (PA0007693).

Beginning on 26 April, with the start of May's first cycle, the following grades will transition from 8.8 RVP to 9 RVP: Buckeye Complex regular CBOB (PA0018535) and Buckeye Complex 91 conventional gasoline (PA0024865).

Group Three market:

Beginning on 1 March, the following Group 3 grades will transition from 13.5 RVP to 8.5 RVP: any month sub-octane V (PA0012677) and prompt sub-octane V (PA0012676). Beginning on 1 March, the following Group 3 grade will transition from 10 RVP to 8.5 RVP: prompt 91 conventional A (PA0003915).

 Beginning on 3 May, the following Group 3 grades will transition from 8.5 RVP to 9 RVP: any month sub-octane V (PA0012677), prompt sub-octane V (PA0012676), and prompt 91 conventional A (PA0003915).

Please contact David Ruisard at 713-429-6306 or david. ruisard@argusmedia.com or Jared Ainsworth at 713-429-6303 or jared.ainsworth@argusmedia.com with any questions or comments.



Argus US Products is published by Argus Media group

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Petroleum

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illuminating the markets