argusmedia.com

Argus *Marine Fuels*

Issue 23-5 | Monday 9 January 2023

OVERVIEW

- Fujairah marine fuels demand was firm and bunker supplies remained sufficient, even for prompt deliveries.
- Demand in Amsterdam-Rotterdam-Antwerp picked up on Monday with buyers pushed into the market by firming prices.
- Buying was soft in Panama because of a national holiday.

Key conventional bunker assessments, midpoint

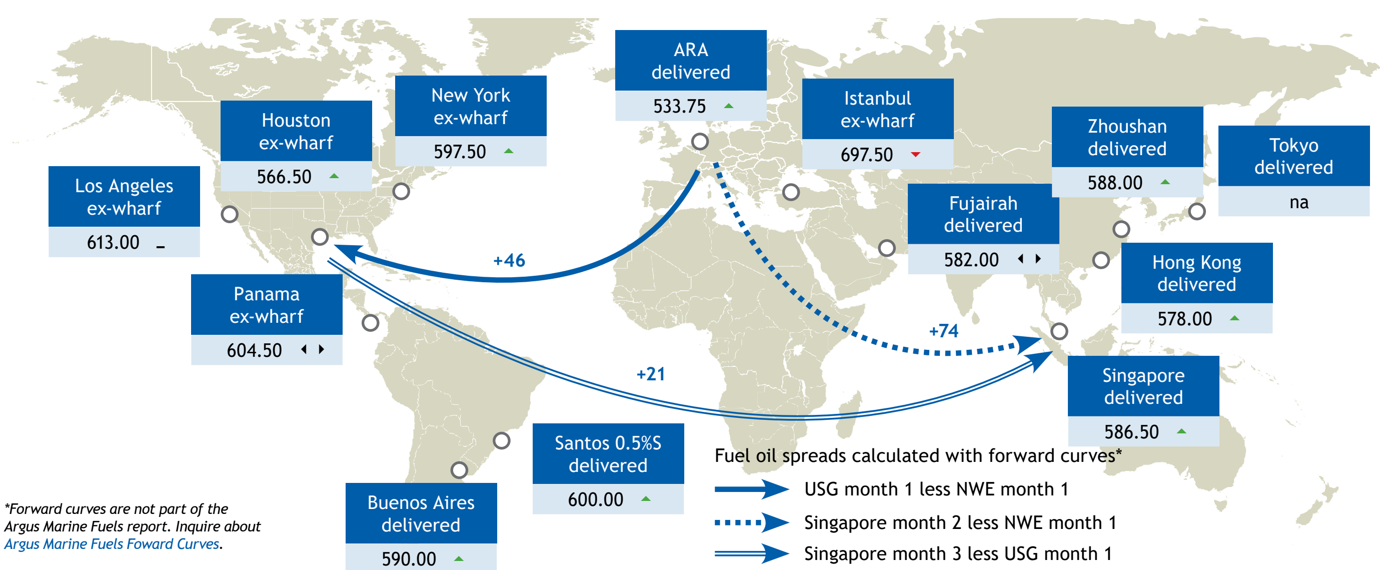
	Delivery	0.5%S fuel oil	MGO	3.5%S fuel oil
Singapore *$/t*	cargo, fob	549.25	-	356.00
	bunker, dob*	586.50	853.00	381.00
Zhoushan *$/t*	bunker, dob*	588.00	937.50	392.50
Fujairah *$/t*	barge, fob	565.00	-	-
	bunker, dob*	582.00	1,100.00	355.00
ARA *$/t*	bunker, dob*	533.75	844.50	-
Rotterdam *$/t*	bunker, dob	-	-	369.50
NW Europe *$/t*	barge, fob	501.25	835.50	344.75
US Gulf *$/bl*	barge, fob	83.15	-	53.94
US Gulf *$/t*	barge, fob	559.94	-	-
Houston *$/t*	bunker, ex-wharf	566.50	897.50	392.50
Houston *$/t*	bunker, dob	578.50	910.00	-
New York *$/bl*	barge, dob	83.65	-	-
New York *$/t*	barge, dob	563.30	-	-
New York *$/t*	bunker, ex-wharf	597.50	952.50	404.00
Los Angeles *$/t*	bunker, ex-wharf	613.00	932.50	344.50
	bunker, dob	629.50	982.50	364.50
Panama *$/t*	bunker, ex-wharf	604.50	995.00	430.00

**volume weighted average*
The $/bl and $/t assessments for 0.5% sulphur fuel oil prices in the New York and US Gulf are assessed independent of each other. They are not directly correlated by fixed conversion factors due to density variables.
Tables include hyperlinks to those values maintained in the Argus database.

RED marine biodiesel dob ARA range

	$/t	±
B10	595.49	▲
B20	624.74	▲
B30	653.98	▲
B50	712.47	▲
B100	843.7	▲

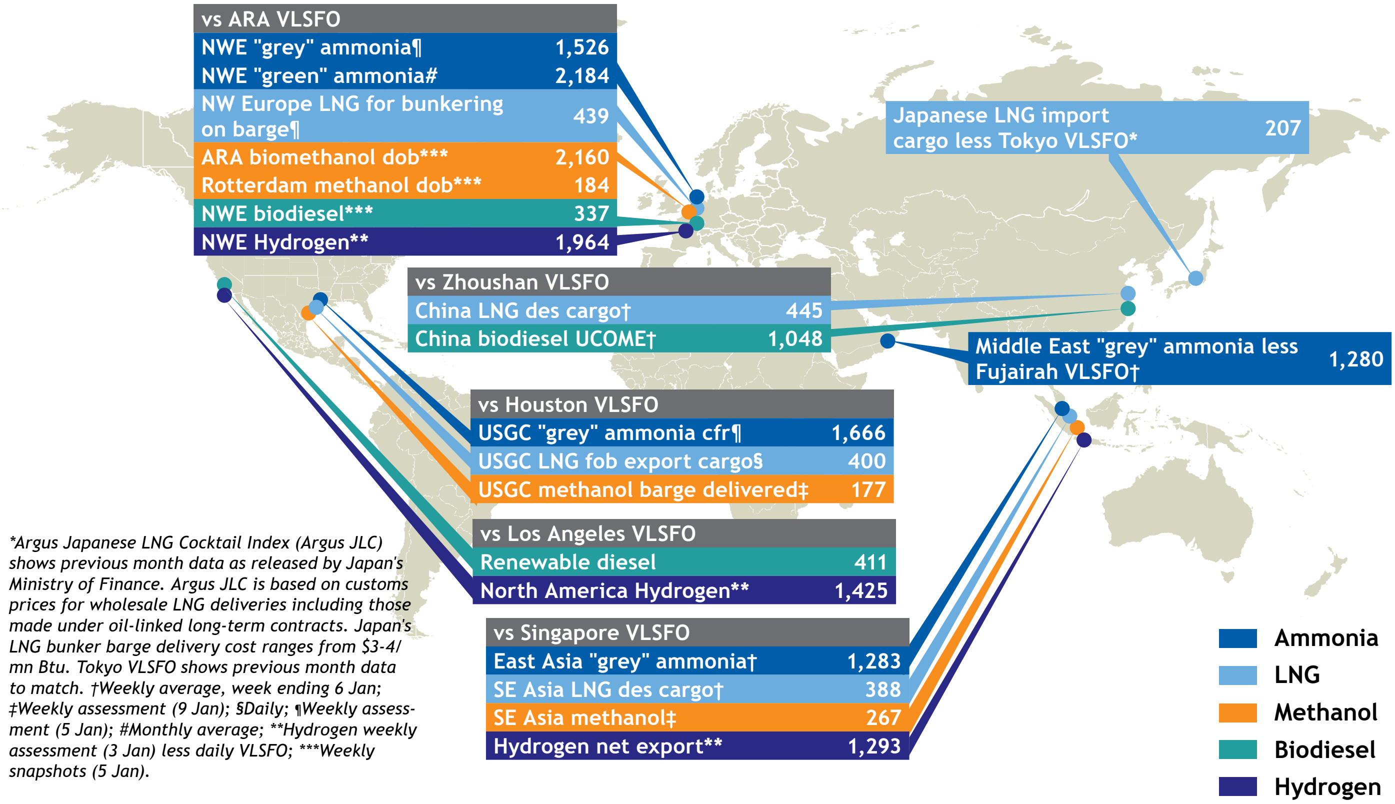
0.5%S FUEL OIL BUNKERS AND BULK 0.5%S FUEL OIL *$/t*



**Forward curves are not part of the Argus Marine Fuels report. Inquire about Argus Marine Fuels Foward Curves.*

ALTERNATIVE MARINE FUEL VS VLSFO

$/t VLSFO-equivalent



**Argus Japanese LNG Cocktail Index (Argus JLC) shows previous month data as released by Japan's Ministry of Finance. Argus JLC is based on customs prices for wholesale LNG deliveries including those made under oil-linked long-term contracts. Japan's LNG bunker barge delivery cost ranges from $3-4/mn Btu. Tokyo VLSFO shows previous month data to match. †Weekly average, week ending 6 Jan; ‡Weekly assessment (9 Jan); §Daily; ¶Weekly assessment (5 Jan); #Monthly average; **Hydrogen weekly assessment (3 Jan) less daily VLSFO; ***Weekly snapshots (5 Jan).*

ALTERNATIVE VS CONVENTIONAL MARINE FUEL

Asia-Pacific and Middle East energy equivalent comparisons	$/mn Btu	$/t 0.5%S FOe	$/t MGOe	$/t 3.5%S FOe
Weekly average, week ending 6 Jan				
Ammonia East Asia (excl Taiwan) cfr	47.44	1,874.02	1,923.93	1,810.17
Methanol Southeast Asia delivered, weekly assessment, 9 Jan	21.71	857.58	880.42	828.36
LNG des Southeast Asia (ASEA) half-month net calorific value-adjusted	24.78	978.95	1,005.02	945.59
Singapore 0.5%S fuel oil delivered	14.96	590.74	-	-
Singapore 0.1%S MGO delivered	21.05	-	853.45	-
Singapore 3.5%S fuel oil delivered	9.95	-	-	379.56
Biodiesel UCOME (used cooking oil) RED bulk China fob	41.64	1,639.06	1,719.85	-
LNG des China half-month net calorific value-adjusted	26.33	1,036.48	1,087.57	-
Zhoushan 0.5%S fuel oil delivered	15.03	591.50	-	-
Zhoushan 0.1%S MGO delivered	23.08	-	953.13	-
Ammonia Middle East fob spot	47.16	1,868.83	1,924.71	-
Fujairah 0.5% fuel oil delivered	14.85	588.50	-	-
Fujairah 0.1% MGO delivered	27.37	-	1,117.00	-
Monthly average				
Japanese LNG cocktail (JLC) preliminary, net calorific value-adjusted, Nov	19.79	834.00	-	-
Tokyo 0.5%S fuel oil delivered, Dec	14.89	627.32	-	-

ALTERNATIVE VS CONVENTIONAL MARINE FUEL

NW Europe energy equivalent comparisons	$/mn Btu	$/t 0.5%S FOe	$/t MGOe	$/t	CO2 % price increase
NWE grey ammonia wholesale excluding duty, cfr, weekly assessment, 5 Jan	51.99	2,042.23	2,098.16	-	-
NWE green ammonia modeled value, wholesale, duty paid, cfr, monthly avg Dec*	68.75	2,700.46	2,774.42	-	-
ARA B100, delivered, snapshot, 5 Jan	21.72	853.09	876.45	679.26	-
ARA B30, delivered, snapshot, 5 Jan	16.38	643.38	661.00	592.58	-
Rotterdam grey methanol delivered, snapshot, 5 Jan	17.83	700.44	719.62	-	-
RED bio-methanol delivered ARA netback, snapshot, 5 Jan	68.13	2,676.22	2,749.51	-	-
NWE LNG bunker, delivered on barge, weekly assessment, 5 Jan	24.33	955.60	981.78	-	-
NWE LNG bunker, delivered on truck, weekly assessment 5 Jan	22.98	902.79	927.51	-	-
ARA 0.5%S fuel oil retail, delivered, snapshot, 5 Jan	13.15	524.19	-	-	-
ARA 0.1%S MGO retail, delivered, snapshot, 5 Jan	20.58	-	839.06	-	-
CO2 added combustion cost, snapshot, 5 Jan†					
EU CO2	-	-	-	80.16	-
Rotterdam grey methanol delivered including CO2 cost, snapshot, 5 Jan	23.67	929.99	955.45	-	33%
RED bio-methanol delivered ARA netback including CO2 cost, snapshot, 5 Jan	73.97	2,905.76	2,985.34	-	9%
ARA B30, delivered, including CO2 cost, snapshot, 5 Jan	20.88	820.19	837.81	769.38	26%
NWE LNG bunker, delivered on barge including CO2 cost, snapshot, 5 Jan	28.53	1,176.44	1,202.61	-	17%
NWE LNG bunker, delivered on truck including CO2 cost, snapshot, 5 Jan	27.19	1,123.62	1,148.34	-	18%
ARA 0.5%S fuel oil retail, delivered including CO2 cost, snapshot, 5 Jan	19.58	769.08	-	-	47%
ARA 0.1%S MGO retail, delivered including CO2 cost, snapshot, 5 Jan	26.95	-	1,087.49	-	30%

**Monthly calculated price. For more information about ammonia inquire about the Argus Ammonia report*
†1t of 0.5%S fuel oil emits 3.151t of CO2, 1t of MGO emits 3.206t of CO2, according to IMO's 2014 guidelines. 1t of LNG emits 2.755t of CO2, and 1t of methanol and biomethanol emits 1.375t of CO2 from burning, according to EU's renewable and low-carbon fuels in marine transport directive. For news and analyis on the EU Emission Trading Scheme market enquire about the Argus European Emissions Market report.

US energy equivalent comparisons, daily	$/mn Btu	$/t 0.5%S FOe	$/t MGOe
US Gulf ammonia cfr spot, weekly assessment, 5 Jan	55.54	2,244.09	2,413.46
US Gulf methanol barge delivered, weekly assessment, 9 Jan	18.69	755.07	812.06
US Gulf LNG fob net calorific value-adjusted	24.22	978.61	1,052.47
Houston 0.5%S fuel oil ex-wharf	14.02	566.50	-
Houston 0.5%S fuel oil delivered	14.32	578.50	-
Houston 0.1%S MGO ex-wharf	20.66	-	897.50
Houston 0.1%S MGO delivered	20.95	-	910.00
New Orleans 0.5%S fuel oil ex-wharf	14.44	583.50	-
New Orleans 0.1%S MGO ex-wharf	21.41	-	930.00
New Orleans 0.1%S MGO delivered	24.12	-	1,048.00
Los Angeles renewable diesel (R99) delivered	25.76	1,040.77	1,119.32
Los Angeles 0.5%S fuel oil delivered	15.58	629.50	-
Los Angeles 0.1%S MGO delivered	22.61	-	982.50

ASIA-PACIFIC

Singapore

Singapore's bunker prices rose, along with firmer crude prices at 4:30pm in Singapore and high-sulphur fuel oil (HSFO) paper prices.

Demand was stronger today, with crude prices increasing during the trading session. *Argus* received eight spot bunker deals for a total of 20,200t.

The VLSFO-HSFO spread narrowed to $205.60/t compared to $208/t on 6 January.

Singapore's January front-month fuel oil swaps for HS380cst cargoes rose by $7/t to $354/t. The differential between *Argus*' delivered 380cst bunkers and the *Argus* Singapore HSFO 380cst assessment was $25/t, while the differential between delivered HS380cst and the front-month Ice Brent futures contract at 4:30pm was minus $20.60/bl.

Singapore assessed bunker prices

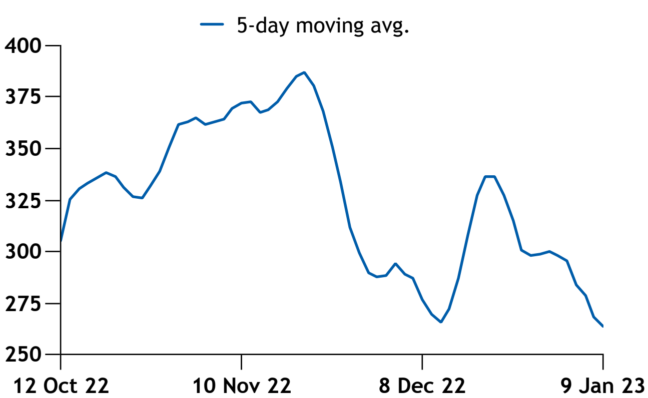
Grade	HS 380cst	LSFO 0.5%S	MGO 0.1%S
Assessment VWA $/t	381.00	586.50	853.00
Reported quantity t	3,000	12,400	4,800
	Low	High	Mid
HS 500cst $/t	373.50	378.50	376.00

Singapore cargo prices $/t

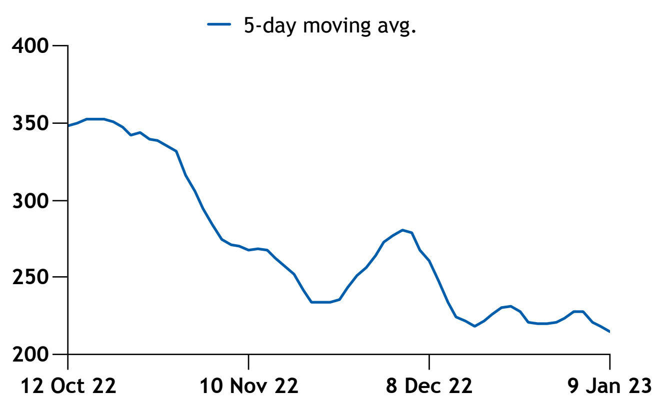
	Low	High	Mid	±
Singapore 0.5%S 30cst min fuel oil fob	548.75	549.75	549.25	▲
Singapore 3.5%S 180cst fuel oil fob	372.00	373.00	372.50	▲
Singapore 3.5%S 380cst fuel oil fob	355.50	356.50	356.00	▲

The total volumes published above include trades excluded from the volume-weighted average prices for failing to meet size, timing or statistical price tests.

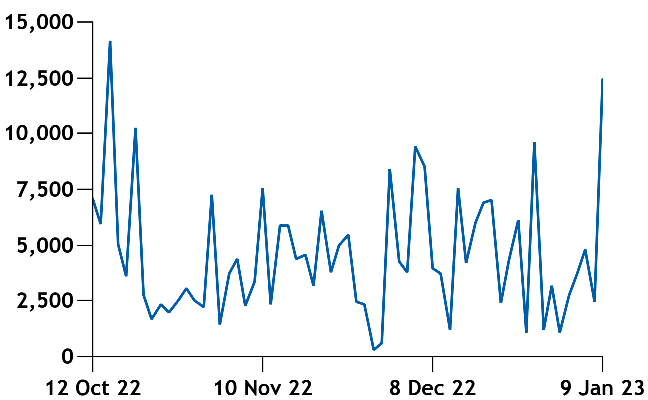
Singapore: MGO 0.1%S less fuel oil 0.5%S *$/t*



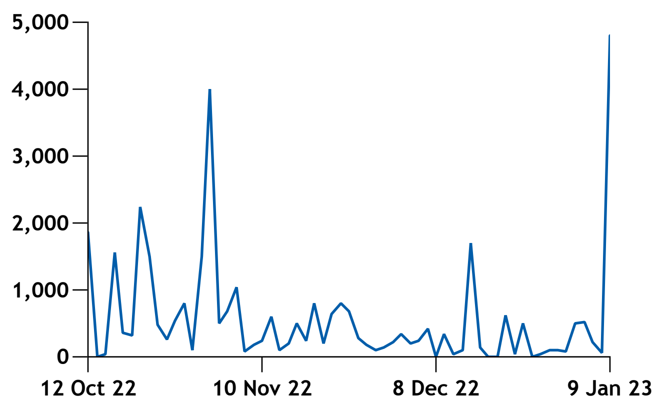
Singapore: fuel oil 0.5%S less fuel oil 3.5%S *$/t*



Singapore fuel oil 0.5%S reported sold quantity *t*



Singapore MGO 0.1%S reported sold quantity *t*



ASIA-PACIFIC

Assessed bunker prices $/t

Location	0.5%S 380cst					MGO				HS 380cst			
	Low	High	Mid	±	Sulphur max %	Low	High	Mid	±	Low	High	Mid	±
China delivered													
Hong Kong			578.00	▲	0.05	912.50	922.50	917.50	▲	377.50	387.50	382.50	▲
Reported quantity t			0	◂▸									
Qingdao	610.00	620.00	615.00	▲	-	-	-	-		392.00	402.00	397.00	◂▸
Shanghai			602.50	▼	0.10	967.50	977.50	972.50	▲	392.00	402.00	397.00	◂▸
Reported quantity t			1,600	▲									
Asia-Pacific (other) delivered													
Russian far east	580.00	640.00	610.00		0.10	900.00	1,030.00	965.00	◂▸	350.00	400.00	375.00	◂▸
Ulsan/Busan/Yeosu	623.50	628.50	626.00	▼	0.10	868.50	873.50	871.00	▲	445.50	450.50	448.00	▼
Sydney	881.00	886.00	883.50	▲	0.10	998.00	1,003.00	1,000.50	▲	676.00	681.00	678.50	▲
Tokyo*	na	na	na		-	-	-	-		na	na	na	
Indian Ocean delivered													
Mumbai	619.00	621.00	620.00		0.10	1,230.00	1,250.00	1,240.00	▼	534.00	536.00	535.00	▼

**0.5%S maximum viscosity 180cst*

Posted bunker prices $/t

Location	0.5%S 380cst					MGO				HS 380cst			
	Low	High	Mid	±	Sulphur max %	Low	High	Mid	±	Low	High	Mid	±
Saudi Aramco delivered													
Saudi Arabia eastern region	-	-	586.00	▼	0.05	-	-	1,329.00	▼	-	-	286.00	▼
Saudi Arabia western region	-	-	586.00	▼	0.10	-	-	1,329.00	▼	-	-	286.00	▼

Fujairah assessed bunker prices

	HS 380cst	LSFO 0.5%S	MGO 0.1%S
Assessment $/t	355.00	582.00	1,100.00
Reported quantity t	500.00	10,050.00	50.00

Zhoushan

	HS 380cst	LSFO 0.5%S	MGO 0.1%S
Bunker Index, delivered $/t	392.50	588.00	937.50
Reported quantity t	0.00	5,670.00	0.00
Barge, ex-wharf $/t	-	580.00	-

China

China's very-low sulphur fuel oil (VLSFO) prices were mixed. Gains in crude oil values lent support to prices, while trading was average in Zhoushan and Shanghai.

Reported trading volumes for VLSFO in Zhoushan inched down to 5,670t from 5,900t on 6 January, while prices edged up to $588/t from $585.50/t. Reported spot trades of VLSFO in Shanghai totalled 1,600t. Prices fell to $602.50/t from $608/t

CPC, Taiwan, delivered, valid from 9 Jan $/t

Location	3.5%S 380cst	0.5%S 180cst	0.1%S MGO
Hualien, Suao*	-	620.00	930.00
Keelung	-	620.00	930.00
Taichung	-	620.00	930.00
Kaohsiung	419.00	620.00	930.00

**Hualien, Suao MGO is 0.5%S maximum*

Pertamina, Indonesia, bunkers for ocean-going vessels, delivered, valid from 01 Jan $/t

	LSFO 0.5%S	HS 180cst	MGO 0.005%S	B30 0.2%S (MGO blend)*
Jakarta	849.00	630.00	1,586.00	1,133.00
Surabaya	867.00	730.00	1,628.00	1,114.00
Balikpapan	882.00	600.00	-	1,192.00
Benoa	-	-	1,643.00	1,166.00
Batam	-	-	1,415.00	-

**Indonesian B30 officially has 0.2%S content which refers to the government's regulation on B30. But test reports show Indonesian B30 has below 0.1%S.*

ASIA-PACIFIC

on 6 January.

The spread of the February VLSFO contract on the Shanghai Futures Exchange (SHFE) to Singapore January paper values flipped to a discount of $4/t from a premium of $5/t on 6 January. The premium of the February HSFO Shanghai contract to Singapore January paper values narrowed to $3/t from $12/t on 6 January.

Russian far east

VLSFO and MGO prices at the ports of Primorsky krai edged higher on Monday on the back of product shortage in the region.

Trading activity at the ports of Primorsky krai remained low. The operator of the general cargo vessel *Galaxy Sky*, due to arrive at Nakhodka on 10 January, requested 200t of VLSFO and 60t of MGO. The owner of the bulk carrier *Hua You 1*, expected in Vostochny on 18 January, requested 75t of VLSFO and 40t of MGO. Local bunkering companies offered these volumes of VLSFO at $630-640/t and MGO at or above $900/t.

Middle East

Fujairah suppliers and trading firms submitted 15 delivered spot bunker deals for 10,600t of marine fuels, up from seven delivered deals for 5,160t in the previous session.

The deals comprised of 10,050t of very low-sulphur fuel oil (VLSFO), 500t of high-sulphur fuel oil (HSFO) and 50t of low-sulphur marine gasoil (LSMGO).

The assessed delivered VLSFO premium over the Singapore 0.5pc marine fuel price, used as a price basis by Fujairah traders, fell to $32.75/t from $39.50/t previously.

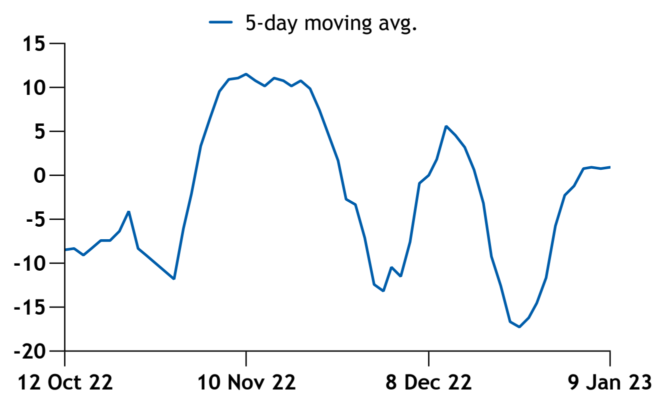
Marine fuels demand was firmer from the previous week, and supplies remained sufficient to meet buying requirements, even for prompt deliveries.

Rain and strong winds over the weekend did not disrupt bunker deliveries, traders said.

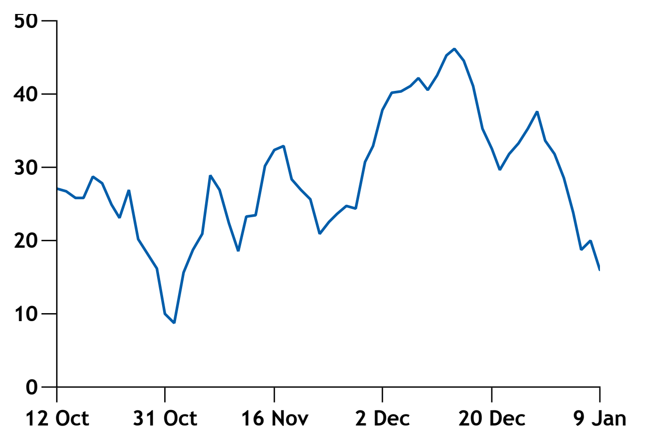
The scrubber spread — the difference between delivered HSFO-VLSFO prices — narrowed to $227/t from $237/t in the previous session.

Fuel oil 0.5%S: Tokyo less South Korea *$/t*

Fuel oil 0.5%S: Zhoushan less Singapore *$/t*



MGO - Fujairah less Singapore *$/t*



EUROPE AND AFRICA

Assessed bunker prices $/t

Location	0.5%S 380cst				MGO					HS 380cst			
	Low	High	Mid	±	Sulphur max %	Low	High	Mid	±	Low	High	Mid	±
Europe delivered													
ARA VWA			533.75	▲	0.10			844.50		-	-	-	
Reported quantity t			2,240					170					
Diff to Ice gasoil	-	-	-			-	-	-36.00	▲	-	-	-	
Rotterdam	-	-	-						▲	367.00	372.00	369.50	▲
Antwerp	-	-	-							367.00	372.00	369.50	▲
Skaw	553.00	558.00	555.50	▲	0.10	918.50	923.50	921.00	▲	495.00	500.00	497.50	▲
Hamburg	551.00	556.00	553.50	▲	0.10	911.00	916.00	913.50	▲	442.00	447.00	444.50	▲
Algeciras/Gibraltar/ Ceuta VWA			574.50	▲	0.10			997.00		-	-	-	
Reported quantity t			3,200					0					
Gibraltar	568.50	573.50	571.00	▲	0.10	992.00	997.00	994.50	▲	430.00	435.00	432.50	▼
Algeciras	570.00	575.00	572.50	▲	0.10	988.75	993.75	991.25	▲	430.00	435.00	432.50	▼
Barcelona ex-wharf	576.50	581.50	579.00	▲	0.10	1,021.75	1,026.75	1,024.25	▲	432.50	437.50	435.00	▼
Genoa ex-wharf	593.25	598.25	595.75		0.10	946.25	951.25	948.75	▲	402.00	407.00	404.50	▼
Malta	564.00	569.00	566.50		0.10	918.00	923.00	920.50	▲	455.00	460.00	457.50	▼
Piraeus	702.50	707.50	705.00		0.10	917.50	922.50	920.00	▲	415.00	420.00	417.50	▼
Kali Limenes	699.50	704.50	702.00		0.10	1,053.00	1,058.00	1,055.50	▲	416.50	421.50	419.00	▼
Istanbul ex-wharf	695.00	700.00	697.50	▼	0.10	1,015.00	1,020.00	1,017.50	▲	622.50	627.50	625.00	▼
Africa delivered													
Canary islands	580.00	585.00	582.50	▲	0.10	995.00	1,000.00	997.50	▲	452.00	457.00	454.50	▼
Cape Town*	734.50	739.50	737.00		0.50	1,283.25	1,288.25	1,285.75	▲	-	-	-	
HS 180cst*										730.00	735.00	732.50	▲
Durban ex-wharf*	700.00	705.00	702.50		0.10	1,211.00	1,216.00	1,213.50	▲	-	-	-	
HS 180cst*										682.50	687.50	685.00	▲
Lome	726.00	731.00	728.50	▲	0.10	1,140.00	1,145.00	1,142.50	▲				
Suez	790.00	795.00	792.50	▼	0.10	1,402.00	1,407.00	1,404.50	▲	476.00	481.00	478.50	▲
Russia delivered													
Arkhangelsk†	520.00	565.00	542.50	◂▸	0.10	900.00	970.00	935.00	◂▸	-	-	-	
Murmansk†	520.00	565.00	542.50	◂▸	0.10	900.00	970.00	935.00	◂▸	-	-	-	
Novorossiysk†	480.00	550.00	515.00	◂▸	0.10	790.00	860.00	825.00	◂▸	280.00	330.00	305.00	◂▸
St Petersburg†	480.00	540.00	510.00	◂▸	0.10	780.00	840.00	810.00	◂▸	200.00	240.00	220.00	◂▸
Ust-Luga†	480.00	545.00	512.50	◂▸	0.10	780.00	845.00	812.50	◂▸	200.00	245.00	222.50	◂▸
ECA 0.1% fuel oil													
Rotterdam	829.50	834.50	832.00	▲	-	-	-	-		-	-	-	
St Petersburg	670.00	730.00	700.00	◂▸	-	-	-	-		-	-	-	
Ust-Luga	670.00	735.00	702.50	◂▸	-	-	-	-		-	-	-	

**0.5%S and 3.5%S fuel oil has maximum viscosity of 180cst †0.5%S maximum viscosity not specified*

Bunker fuel prices lacked clear direction on Monday across Europe and Africa as gasoil firmed during the day.

Demand in the Amsterdam-Rotterdam-Antwerp (ARA) picked up on Monday with buyers pushed into the market by firming prices. Availabilities of very-low sulphur fuel oil with 0.5pc sulphur (VLSFO) remained ample even against a backdrop of increased demand.

The premium of VLSFO to high sulphur 380cst fuel oil with 3.5pc sulphur — known as the scrubber spread — widened by $5.25/t to $164.25/t.

Marine gasoil with 0.1pc sulphur (MGO) prices firmed in line with Ice gasoil and the higher demand. In Rotterdam, 100t of MGO sold for $842/t.

In Skaw, demand remained sluggish compared to ports in

Barge prices $/t

	Low	High	Mid	±
NWE 0.5% fuel oil fob	499.25	503.25	501.25	▼
NWE 1.0% fuel oil fob	398.75	402.75	400.75	▲
NWE 3.5% RMG fob	342.75	346.75	344.75	▲
NWE 3.5% RMK fob	-	-	345.00	▲
NWE 0.1% MGO fob	833.50	837.50	835.50	▲

EUROPE AND AFRICA

ARA. Availabilities across grades remained ample with suppliers expecting no shortage of cargoes in the coming sessions. One clip of MGO at 65t sold for $937/t in Skaw.

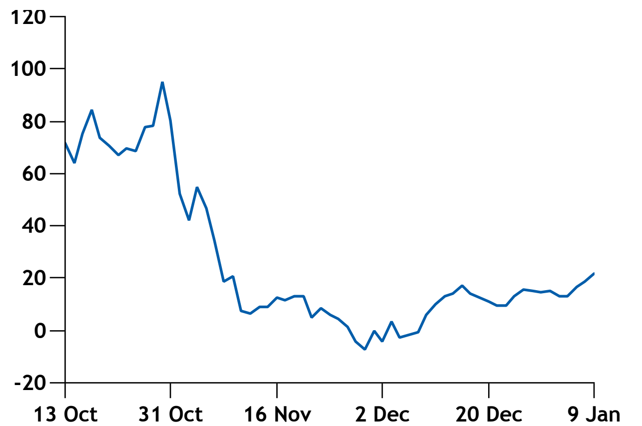
Firm demand in Las Palmas helped buoy VLSFO and MGO prices. Supplies remained ample as suppliers did not struggle to secure cargoes in the new year. On the island of Tenerife, 450t of VLSFO and 20t of MGO sold for $591/t and $959/t respectively.

In the Gibraltar-Algeciras-Ceuta (West Med) hub, firm demand helped VLSFO and MGO prices rise. Despite this, the hub's VLSFO premium to ARA narrowed by $6.25/t to $40.75/t, on the back of stronger gains in ARA. In Gibraltar, 650-750t of VLSFO sold for $571/t and in Algeciras 2,000t of VLSFO sold for $572.50/t.

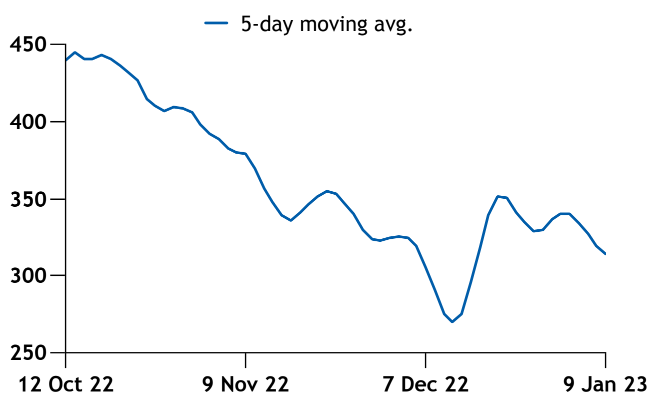
To the east, in Piraeus, demand also picked up with buyers seeking many deliveries for small quantities. Suppliers pointed to the port's high VLSFO premiums compared with other ports in the Mediterranean as limiting the volume buyers sought to purchase. Despite outright prices edging lower by $5/t to $705/t, the port maintained a VLSFO premium around $130/t to Malta and West Med.

In west Africa, demand was firm with rising prices pushing buyers into the market. Increased premiums for fuel oil cargoes in the region pushed prices up for suppliers in recent sessions. Offshore of Abidjan, 180t of VLSFO and 50t of MGO sold for $750/t and $1,205/t, respectively.

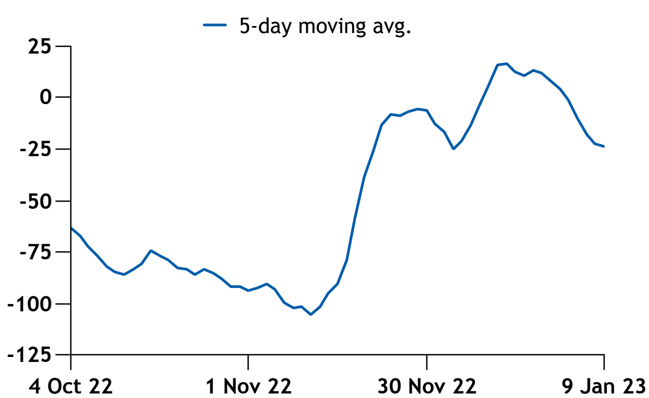
Northwest Europe gasoil - month 1 less month 2 $/t



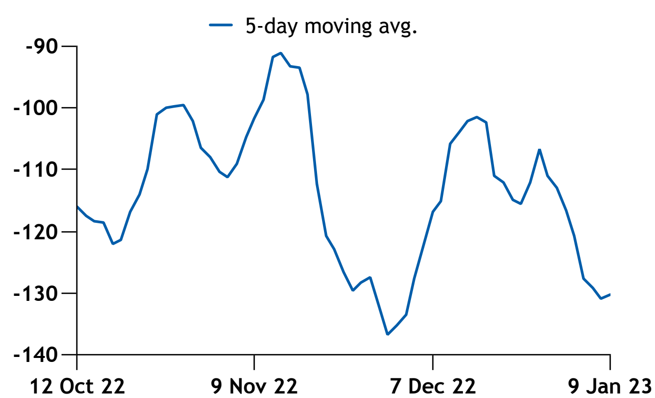
Rotterdam: MGO less fuel oil 0.5%S $/t



Fuel oil 0.5%S: St Petersburg less Rotterdam $/t



Fuel oil 0.5%S: Gibraltar less Istanbul $/t



NORTH AMERICA

Assessed bunker prices $/t

	0.5%S 380cst				MGO					HS 380cst			
Location	Low	High	Mid	±	Sulphur max %	Low	High	Mid	±	Low	High	Mid	±
Atlantic coast ex-wharf													
Halifax	-	-	-		0.10	1,185.00	1,189.00	1,187.00	▼	-	-	-	
Montreal delivered	745.00	750.00	747.50	▲	0.10	1,085.00	1,090.00	1,087.50	▼	594.00	599.00	596.50	▼
New York	595.00	600.00	597.50	▲	0.10	950.00	955.00	952.50	▲	402.00	406.00	404.00	▼
Philadelphia	605.00	622.00	613.50	▲	0.10	975.00	980.00	977.50	▲	472.50	476.50	474.50	▼
Gulf coast ex-wharf													
Houston	560.00	573.00	566.50	▲	0.10	895.00	900.00	897.50	▲	390.00	395.00	392.50	▲
New Orleans*	580.00	587.00	583.50	▲	0.10	928.00	932.00	930.00	▲	395.00	400.00	397.50	▼
Gulf coast delivered													
Houston	576.50	580.50	578.50		0.10	908.00	912.00	910.00	▲	-	-	-	
New Orleans	-	-	-		0.10	1,045.50	1,050.50	1,048.00	▲	-	-	-	
West coast ex-wharf													
Los Angeles	611.00	615.00	613.00	–	0.10	930.50	934.50	932.50	▲	342.50	346.50	344.50	▼
Portland	-	-	-		0.10	1,088.00	1,092.00	1,090.00	▲	-	-	-	
San Francisco	561.00	565.00	563.00	▼	0.10	1,045.00	1,050.00	1,047.50	▲	286.00	291.00	288.50	▼
Seattle	675.00	680.00	677.50	▲	0.10	920.00	925.00	922.50	▲	333.50	337.50	335.50	▲
HS 500cst	-	-	-		-	-	-	-		328.50	332.50	330.50	▲
Vancouver†	710.00	715.00	712.50	▲	0.10	910.00	915.00	912.50	▲	410.00	415.00	412.50	▲
West coast delivered													
Los Angeles	627.00	632.00	629.50	▼	0.10	980.00	985.00	982.50	▲	362.00	367.00	364.50	▼
Portland	-	-	-		0.10	1,098.00	1,102.00	1,100.00	▲	-	-	-	
San Francisco	568.00	572.00	570.00	▼	0.10	1,055.00	1,060.00	1,057.50	▲	304.50	309.50	307.00	▼
Seattle	685.00	690.00	687.50	▲	0.10	930.00	935.00	932.50	▲	334.50	339.50	337.00	▲
HS 500cst	-	-	-		-	-	-	-		329.50	334.50	332.00	▲

**0.5%S product viscosity maximum not specified †180cst*

US east and Gulf coasts spot bunker demand picked up on Monday. Prices at most ports were up tracing higher Brent.

In Houston, 500t of very low-sulphur fuel oil (VLSFO) sold ex-wharf at $560/t with 50t of marine gasoil (MGO) at $920/t. A 200-500t VLSFO enquiry was offered at $560-570/t ex-wharf. MGO, sized at 100-700t, was quoted ex-wharf at $900-940/t. There were two ex-wharf deals heard in nearby Bolivar Roads, Texas. First, 1,050t of VLSFO went for $573/t. The second was for 200t of MGO at $900/t. A 300t MGO lot sold delivered at $900/t in Galveston, Texas.

In New Orleans, 200-450t of VLSFO sold ex-wharf at $587/t with 50-150t of MGO at $930/t. VLSFO was indicated cheaper at $580/t. The New Orleans to Houston VLSFO premium widened to $17/t.

In a combined ex-wharf deal, 410t of VLSFO went for $622/t with 70t of MGO at $976/t ex-wharf in Marcus Hook, Pennsylvania, near Philadelphia. A 400t VLSFO enquiry was quoted at $605/t with 200t of MGO at $980/t ex-wharf in Philadelphia. A 500t clip of high-sulphur 380cst went for $404/t ex-wharf in New York.

Barge prices

	Low	High	Mid	±
USG 0.5% fuel oil fob *$/t*	556.57	563.30	559.94	▲
NYH 0.5% fuel oil delivered *$/t*	561.62	564.98	563.30	▲
USG 0.5% fuel oil fob *$/bl*	82.65	83.65	83.15	▲
USG 3.0% fuel oil fob *$/bl*	51.84	52.04	51.94	▲
USG 3.5% fuel oil fob *$/bl*	53.69	54.19	53.94	▲
NYH 0.5% fuel oil delivered *$/bl*	83.40	83.90	83.65	▲
NYH 1.0% fuel oil delivered *$/bl*	69.97	70.13	70.05	▲
NYH 0.5% MGO *¢/USG*	245.10	246.10	245.60	▲

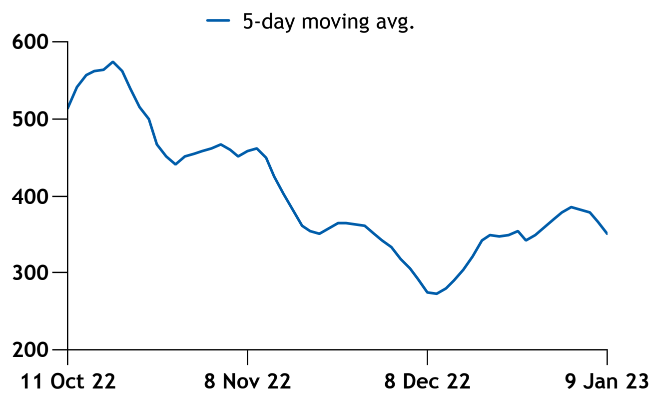
The $/bl and $/t assessments for 0.5% sulphur fuel oil prices in the New York and US Gulf are assessed independent of each other. They are not directly correlated by fixed conversion factors due to density variables.

NORTH AMERICA

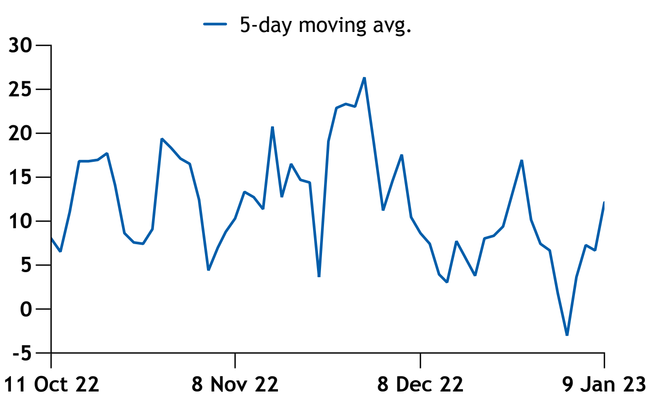
Brazil's Petrobras booked a 70,000t fuel oil cargo, on tanker Fairway, to load in Brazil on 25 January, with the option to discharge in the US Atlantic coast.

North America west coast bunker demand was mostly soft to begin this week. In Oakland, California, 175t of MGO was offered at $1,050/t ex-wharf. MGO, sized at 130t, was quoted on Friday at $900/t ex-wharf in Seattle. The Los Angeles to Singapore VLSFO premium on Monday tightened to $43/t on lower prices for Los Angeles VLSFO.

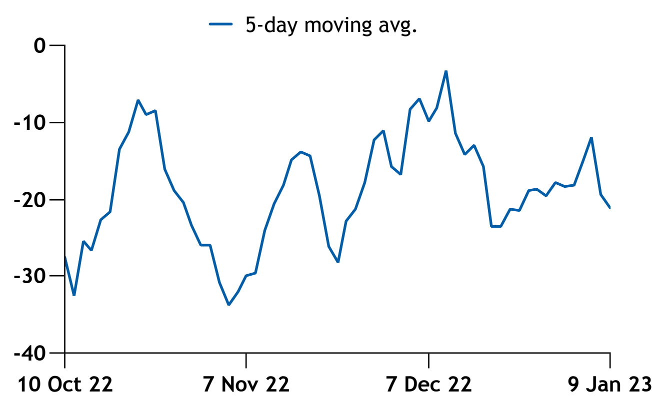
Houston: MGO less fuel oil 0.5%S *$/t*



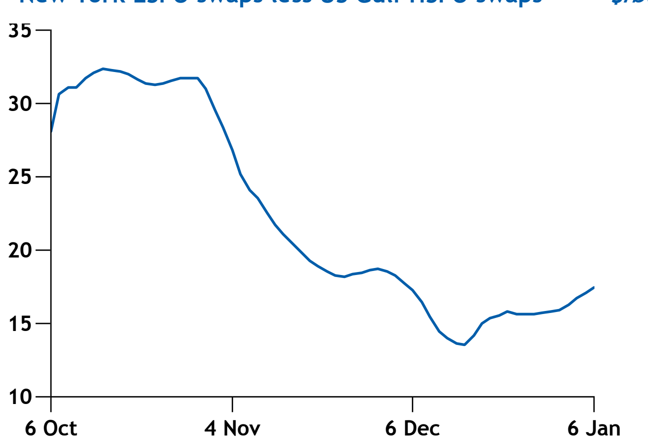
Fuel oil 0.5%S: New Orleans less Houston *$/t*



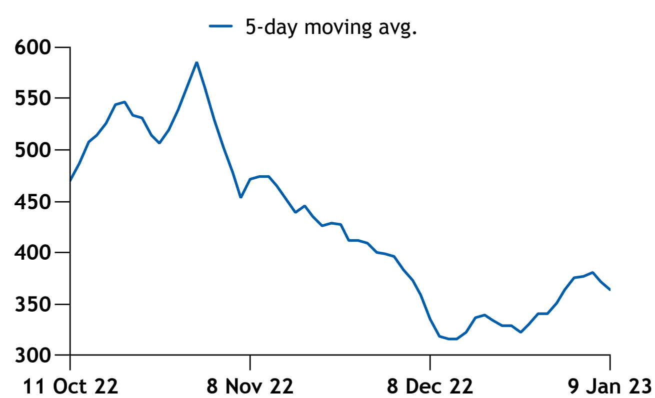
Fuel oil 0.5%S: Rotterdam less Houston *$/t*



New York LSFO swaps less US Gulf HSFO swaps *$/bl*



New York: MGO less fuel oil 0.5%S *$/t*



LATIN AMERICA

Assessed bunker prices $/t

Location	0.5%S 380cst Low	High	Mid	±	MGO Sulphur max %	Low	High	Mid	±	HS 380cst Low	High	Mid	±
Panama canal ex-wharf	600.00	609.00	604.50	◄►	0.10	993.00	997.00	995.00	◄►	428.00	432.00	430.00	◄►
Atlantic coast delivered													
Buenos Aires	588.00	592.00	590.00		0.10	1,375.00	1,380.00	1,377.50	▼	-	-	-	
Montevideo	837.00	842.00	839.50	▲	0.10	1,430.00	1,435.00	1,432.50	▲	-	-	-	
Caribbean delivered													
Cartagena	710.00	715.00	712.50	◄►	0.10	925.00	930.00	927.50	◄►	427.50	431.50	429.50	◄►
Pacific coast delivered													
El Callao	810.00	815.00	812.50	◄►	0.10	1,255.00	1,260.00	1,257.50	◄►	-	-	-	
Guayaquil†	946.00	951.00	948.50	◄►	0.50	1,320.00	1,325.00	1,322.50	◄►	423.00	428.00	425.50	◄►
Libertad†	915.00	920.00	917.50	◄►	0.50	1,320.00	1,325.00	1,322.50	◄►	422.00	427.00	424.50	◄►
Quintero/ Valparaiso*	1,048.00	1,053.00	1,050.50	◄►	0.10	1,399.00	1,404.00	1,401.50	◄►	738.00	743.00	740.50	◄►
San Antonio*	1,052.00	1,057.00	1,054.50	◄►	0.10	1,403.00	1,408.00	1,405.50	◄►	739.00	744.00	741.50	◄►

**0.5%S maximum viscosity 180cst †0.5%S maximum viscosity not specified*

Posted bunker prices $/t

Location	0.5%S Low	High	Mid	±	MGO Sulphur max %	Low	High	Mid	±	HS 380 Low	High	Mid	±
Trafigura delivered - valid from 21 December 2023													
Bahia Blanca	-	-	620.50	◄►	0.10	-	-	1,250.00	◄►	-	-	-	
Petrobras delivered - valid from 07:20, 9 January 2023													
Belem	-	-	659.00	▲	0.50	-	-	1,107.00	▲	-	-	-	
Paranagua	-	-	635.00	▲	0.50	-	-	1,093.00	▲	-	-	-	
Rio de Janeiro	-	-	625.00	▲	0.50	-	-	1,030.00	▲	-	-	-	
Santos	-	-	600.00	▲	0.50	-	-	1,060.00	▲	-	-	-	
PdV - valid until 09:00, 20 September 2022													
Venezuelan ports ex-wharf/ex-pipe	-	-	-		0.50*	-	-	633.20	◄►	-	-	436.60	◄►
HS 180 cst†										-	-	474.80	◄►

**typical sulphur content †3.5%S fuel oil has maximum viscosity of 180 cst*

Latin American bunker demand was muted to begin this week. Buying activity was soft in one of the region's biggest bunkering hubs, Panama, because of a national holiday.

In Buenos Aires, Argentina, three very low-sulphur fuel oil (VLSFO) lots for total of 1,340t, sold delivered at $590/t.

The Santos, Brazil, to Buenos Aires VLSFO premium narrowed to $10/t. Buenos Aires VLSFO gains outpaced Santos, which lowered this differential.

Brazil's Petrobras booked a 70,000t fuel oil cargo, on tanker Fairway, to load in Brazil on 25 January, with the option to discharge in the US Atlantic coast.

In Georgetown, Guyana, 30m3 of marine gasoil sold at $1,068/m3 delivered.

Pemex - valid from 3 January 2023

Location	Basis	HS 180 Ps/m3	$/t
Lazaro Cardenas	ex-terminal	12,033.89	615.91
Madero	ex-terminal	11,393.18	583.12
Pajaritos	ex-terminal	10,546.09	539.76
Progreso	ex-terminal	10,541.71	539.54
Salina Cruz	ex-terminal	11,730.08	600.36

$/t prices are converted, not posted. HS 180 uses conversion factor 0.980m3 for 1t.

NEWS

Pan Ocean sues WFS for off-spec VLSFO

South Korea-based shipping company Pan Ocean filed a lawsuit against marine fuel supplier World Fuel Services (WFS) for $490,575 for allegedly supplying a vessel with off-specification very low-sulphur fuel oil (VLSFO) in Singapore in July 2022.

Pan Ocean bought 500t of VLSFO from WFS at $1,100/metric tonne (t) which was delivered to general cargo vessel *African Wren*. Pan Ocean was chartering *African Wren* from shipowner MUR Shipping. The fuel was physically supplied by BP. The VLSFO was tested at delivery and the test showed "excessive water and sodium" content. MUR refused to consume or pay Pan Ocean for the off-specification bunkers. MUR removed the fuel from the vessel and sold it in Malta at $300/t.

The lawsuit was filed on 3 January at the US District Court Southern District of Florida.

WFS and Pan Ocean did not respond to requests for comments.

Delays expected after ship grounding in Suez

Minor delays to shipping are expected through the Suez Canal after a cargo vessel briefly ran aground while traversing the key waterway early on Monday, shipping agent Leth Agencies said.

The Marshall Islands-flagged *MV Glory* ran aground at around 08:00 local time (06:00 GMT) today close to the Egyptian city of El Qantara as it was travelling southbound through the canal. The vessel most recently left Istanbul on 4 January and entered the Suez Canal today at 05:00 local time.

The vessel was refloated by Suez Canal Authority tugboats at around 09:50 local time, Leth Agencies said, less than two hours after it was grounded, allowing 21 vessels that had been stopped from travelling to resume their transit. Leth said ordinary convoy is expected to resume at 11:00 local time.

The incident comes around 18 months after a containership, the *Ever Given*, blocked the Suez Canal for almost a week after running aground. At the height of the incident, a backlog of more than 350 ships waiting to transit the waterway built up.

By Nader Itayim

Japan's Mol signs LNG bunker agreement for 2025

Japanese shipping firm Mitsui OSK Line (Mol) has signed an LNG bunker supply deal with Japanese upstream firm Japan Petroleum Exploration (Japex) and regional gas utility Hokkaido Gas for two new ferries.

The ferries are scheduled to start in 2025 along the Oarai-Tomakomai route, linking the northern island of Hokkaido to the main Honshu island. Japex will supply the fuel at Oarai, east of Tokyo, while Hokkaido Gas will supply LNG at Tomakomai port in north Japan's Hokkaido.

The LNG supply system will be able to connect the vessel to four trucks simultaneously and speeds up the bunkering process, Mol said.

Japec and Mol completed a truck-to-ship bunkering trial for an LNG-powered tugboat at Tomakomai in September.

By Auguste Breteau

Q&A: EU should not treat green H2 as luxury

The European Commission failed to finally propose a delegated act that would legally define what counts as renewable hydrogen before Christmas. But Brussels' politics is never so simple, as Hydrogen Europe's chief policy officer Daniel Fraile explains in this Q&A that has been edited for clarity and length.

Why is the delegated act so long overdue?

Consultation with stakeholders started late. And the Fit for 55 package of energy and climate measures brought the political debate to a whole new level by proposing binding targets for use of renewable fuels of non-biological origin (RFNBOs) in industry and transport.

Another reason for delay may relate to the lack of prior impact assessment. So we've now seen endless discussions on alleged negative effects from deploying large amounts of renewable hydrogen. Internal discrepancies within the commission also do not help timing. RFNBOs became guinea pigs for testing detailed and restrictive temporal correlation and other rules for industrial energy consumption.

Politically, the European Parliament decided, in September, to retake control of the process. It effectively called for the delegated act to be settled in the revised renewables directive (REDIII). This has, though, created further uncertainty. In REDIII negotiations, we now see parliament telling the commission to be more flexible and listen to industry.

What differences do you see between countries on renewable hydrogen?

Most countries don't want too restrictive a temporal correlation. That would increase RFNBO costs and possibly make RFNBO consumption non-viable.

Debates have unnecessarily focused on creating targets

NEWS

that can only be complied with by electrolysis-generated renewable hydrogen (RFNBO). That excludes other renewable hydrogen production methods such as thermolysis from bio-residues and municipal solid waste.

Another issue between countries is the additionality condition and a perception that hydrogen is a competitor to heating and road transport electrification. After analysing 340 stakeholder consultation submissions to the commission, we see considerable support for monthly temporal correlation as well as a longer transitional period for entry into force of the rules. But such stakeholder input does not seem to have been taken into account by the commission.

Will parliament accept the commission's proposal?

We've seen more controversial delegated legislation passing through the European Parliament.

But it's not for me to speculate on exactly how members will vote. The chances of parliament rejecting the commission's proposed delegated act on hydrogen are not that high.

How hydrogen-friendly is the ongoing reform of the EU's gas market laws?

We'll see exactly once EU member states and parliament adopt their positions. Some commission proposals are very good. Others need fine-tuning, so that hydrogen does not become a luxury champagne-style good.

The commission's impact assessment, backing up the slew of proposals under the Fit for 55 package, envisages renewable hydrogen supplying some 18-20pc of final energy demand in 2050. That means we just can't afford treating hydrogen as a luxury item only affordable for the lucky few.

Will we see the EU hydrogen bank this year?

At least the EU component is advancing well. We have the legal basis in the reviewed EU emissions trading system (ETS). There's the commission announcement of a budget totalling €3bn. And the legal instrument to organize the calls for tender exists in the innovation fund.

So it's reasonable to assume the auctions for hydrogen production could begin before the year ends or even earlier. There are a few questions to be decided so the additional value created stays within Europe.

By Dafydd ab Iago

European LNG import growth outweighs Asia fall

Quicker European LNG receipts outweighed lower Asian imports in December, lifting aggregate global receipts from a year earlier.

Europe received 12.7mn t last month — around a third of global receipts of 36.1mn t — up from 8.5mn t a year earlier, according to preliminary tracking data from analytics firm Vortexa. December global imports were second only to January 2022 at 36.4mn t.

Northwest European countries absorbed 7mn t — more than half the European total — compared with 3.8mn t a year earlier. The UK and France were the only two countries in northwest Europe whose LNG imports exceeded 2mn t, taking 2.3mn t and 2.6mn t, respectively.

Cold snaps in most of northwest Europe in early December bolstered LNG regasification in the region. UK gas consumption, especially in local distribution zones, moved above three-year averages as a result of the cold weather as well as low wind generation.

Northeast Asian importers — Japan, South Korea, China and Taiwan — imported 19mn t in the same period, down from 21mn t a year earlier, reducing the region's percentage of global receipts to 53pc from 60pc a year earlier.

China imported the most among Asia-Pacific importers, followed by Japan and South Korea. A total of 7mn t of LNG arrived in China in December, down from 8mn t a year earlier, and Japanese imports also decreased to 6.4mn t, from 7.1mn t in December 2021. But South Korean imports held at a similar level as a year earlier at around 4mn t. South Korean importer Kogas had secured extra LNG for this heating season ahead of winter, which might have limited the decrease in imports. Chinese LNG imports, on the other hand, continued to hold below previous levels in 2022, largely as a result of lower economic activity and higher spot LNG prices curbing demand.

Morocco's ammonia imports delayed by weather

Poor conditions are delaying ammonia vessels discharging at Jorf Lasfar port in Morocco. Bad weather is expected to hinder operations at the port until at least 10 January, with berthing and unberthing operations currently suspended.

Four vessels carrying around 114,000t are scheduled to discharge over the next few days. The *Gas Venus* vessel is now expected to berth on 10 January, having arrived at the port on 2 January. The *Clipper Venus* and *Kaprijke* have been waiting to unload since 7 and 8 January, respectively.

The January lineup at Jorf Lasfar is currently around 140,000t, with the majority of this month's lineup sourced

NEWS

from the Middle East. Three shipments of ammonia carrying 75,000t will be sourced from Saudi Arabia this month, where fob prices are currently trading at a steep discount to prices in the Caribbean. The *Argus* Middle East fob ammonia price was $790/t on a mid-point basis on 5 January, compared to $940/t fob in the Caribbean/US Gulf.
By Elizabeth Owen

Brazil's ammonia exports rise as imports falter

Brazil's ammonia imports fell by 17pc last year, while its export industry grew, with the industry grappling with high import prices and competition from European markets.

Brazil imported 444,775t of ammonia in 2022, down from 534,207t the previous year. Trinidad and Tobago remains Brazil's main source of ammonia, having provided 82pc of its total imports in 2022. But imports fell on the year, to 366,000t over the period from 514,000t in 2021.

Imports from the US totalled 34,000t last year, above the previous high of 13,000t in 2018. Qatar, Algeria and Argentina all supplied roughly one 15,000t shipment to Brazil over the year.

Brazil imports its ammonia into Santos port for phosphates producer Mosaic, the majority of which is supplied from Yara's Trinidad plants as part of an annual supply agreement. The slight decrease in imports is likely to be linked to record-high international ammonia pricing following the removal of Russian ammonia supply from the market, followed by severe European production curtailments caused by high gas prices. Suppliers in Trinidad also redirected more ammonia to Europe to cover the lost production. The delivered price at Tampa — to which Brazilian import cargoes are often linked — averaged $1,167/t cfr last year, up from $594/t cfr in 2021.

From an export perspective, Brazil shipped 99,000t of ammonia last year, the highest volume since 2016 and an increase on the 36,000t exported the previous year, supported by increased availability from fertilizer producer Unigel from Aratu port and higher European demand.

South Africa received the most Brazilian ammonia last year, at 38,000t, while Morocco imported 18,000t, with shipments also delivered to Spain, Portugal and France.

Chile received no Brazilian ammonia last year, after having purchased 35,000t in 2021 — almost the entirety of Brazil's total export volume that year.
By Elizabeth Owen

Strike suspended at UK refinery: Update

Industrial action by workers at ExxonMobil's 270,000 b/d Fawley refinery in the UK has been suspended while negotiations take place in a bid to resolve an ongoing pay dispute, the GMB union told *Argus* today.

Repair and maintenance workers employed by engineering contractors Rhyal, Bilfinger and Altrad were due to down tools again at the site on 9-10 January in the latest round of industrial action that has been ongoing since November.

"If the issue is not resolved strikes could resume, if an acceptable offer is received and accepted by membership, then they won't," GMB regional organiser Bryan Hulley said.

ExxonMobil told *Argus*: "We have been advised by contracting companies operating at Fawley under the National Agreement for the Engineering Construction Industry (NAECI), that industrial action by their employees, who are members of Unite and GMB unions, has been suspended while national discussions are progressing between the unions and NAECI employers.

"We welcome this development and urge all parties to continue working together to reach a resolution."
By Georgina McCartney

Brazil diesel, gasoline imports rose in December

Brazilian diesel and gasoline imports moved up in December as fuel retailers increased purchases amid favorable arbitrage and withdrawal limitations from the 208,000 b/d Araucaria refinery (Repar) in southern Parana state.

Diesel imports rose by 31pc to 1.5bn l (306,770 b/d) in December, according to the ministry of economy. The US represented a 47pc share of the total volume, followed by India, with 29pc, and the UAE.

Diesel coming from Russia accounted for 2.35pc of imports. Importers and fuel retailers mentioned offers of nationalized diesel in the Paranagua port, in Parana, below the domestic market consensus between late December and early January because of the arrival of Russian product. Buyers have not reported acquisitions of Russian diesel to *Argus*.

For the full year 2022 diesel imports rose by 10pc over the previous year to 15bn l.

Diesel exports also rose in December to 5.7mn l, a 15pc rise from the same month in 2021. The Netherlands received 22pc of the total volume, followed by Colombia, with 14pc, and the UK, with 9pc.

NEWS

Gasoline imports increased in December partly because of European oversupply. Flow from overseas increased sevenfold compared with December 2021 to 1bn l, with 42pc of the total volume coming from the Netherlands. The US' share reached 33pc.

For the full year gasoline imports rose by 79pc to 4.5bn l.

Gasoline exports dropped by almost 96pc to 5.6mn l in December and fell by 69pc in 2022 from the year prior.

By Gabrielle Moreira

Gen2, SEFE eye green H2 supply deal

Norwegian hydrogen company Gen2 and Germany's state-owned Securing Energy for Europe (SEFE) are discussing a potential long-term agreement for the delivery and offtake of containerized compressed hydrogen.

The parties are aiming to execute a deal in the next six months to secure an initial offtake volume from Gen2's first production facility in Mosjoen, Norway, which would be supplied directly to customers in Germany and Northwest Europe, Gen2 said.

Gen2 expects that starting in late 2025 or 2026 compressed hydrogen will be delivered in specially designed containers and transported via a dedicated ship from Gen2's planned production sites along Norway's coast to ports in Germany, the Netherlands and/or the UK.

SEFE, formerly Gazprom Germania, was last year purchased for €225.6mn by Berlin. It was previously owned by Russian state-controlled Gazprom's export arm, Gazpromexport.

By Emmeline Willey

Raven to make H2 from waste in early 2024

Renewable fuels producer Raven SR, Chevron New Energies and automaker Hyzon Motors are targeting commercial operations for a California waste-to-hydrogen plant starting in the first quarter of 2024.

The Richmond, California, facility will be owned by Raven SR S1, a company formed by the three partners. Chevron holds a 50pc equity stake in the company, Hyzon holds 20pc, and Raven SR holds 30pc and will operate the facility, Raven said.

Raven expects the project will process up to 99 metric tonnes/d of wet biodegradable and food waste to produce up to 2,400 t/yr (6.6 t/d) of hydrogen, potentially avoiding 7,200 t/yr of landfill CO_2 emissions.

Raven said its chemical reductive process requires no additional water to produce hydrogen and uses less electricity than electrolysis. The company expects the new facility obtain up to 60pc of its electricity from upgraded landfill-gas generators at the site.

Chevron plans to market its share of the hydrogen at fueling stations in northern California, including the San Francisco Bay Area. Hyzon plans to provide fueling stations for hydrogen fuel-cell trucks at a Richmond hydrogen hub, Raven said.

Chevron and Hyzon have previously invested in Raven SR.

By Emmeline Willey

W Australia land allocation to boost H2 projects

The state government of Western Australia has approved allocation of land for seven industrial projects worth A$70bn ($48bn) — including projects making hydrogen and derived products — as part of its plan to develop industrial hubs on the Pilbara coast.

The government has granted five developers land at the Boodarie Strategic Industrial Area (SIA) and two projects down the coast at the Ashburton SIA 12km south of Onslow. Many developers are still seeking approval for larger sites in remote regions but also need sites closer to the ports.

Land allocations in the Boodarie SIA went to BP, Fortescue Metals, South Korean steelmaker Posco, Tees Valley Lithium and Alinta Energy. These will support projects focused on green iron ore, ammonia, hydrogen and lithium sulphate, the state government said. The SIA is 12km south of Port Hedland, which is the world's largest bulk export port according to the local port authority.

The land award was a "positive move forward", said BP, as it "provides excellent access to Port Heldland and the proposed Australian Renewable Energy Hub". BP's $36bn joint venture on a 6,500km² site 220km east of Port Hedland plans to export 9mn t/yr of renewable ammonia and supply hydrogen and renewable power to miners and industrial users in the Pilbara.

Posco has previously announced collaboration with Pilbara-based iron ore producer Roy Hill to use hydrogen for steelmaking. The firm said last month that it plans to invest $28bn in Australian hydrogen and ammonia projects. Alinta plans to build a 45MW solar farm and battery storage system to cut emissions at partner BHP's iron ore port facilities, while Tees Valley Lithium plans to build a lithium sulphate refinery to sup-

NEWS

ply global battery markets.

The government allocated two plots of land at the Ashburton SIA to Fortescue Metals' subsidiary Fortescue Future Industries (FFI) and Equus Energy, a subsidiary of Western Gas, for projects making ammonia and methanol, it said. FFI's land award is likely linked to the 5.4GW Uaroo Renewable Energy Hub, which the firm has proposed to build 120km south of Onslow and which will use wind and solar to produce green hydrogen and ammonia.

Equus sees production of ammonia and methanol from gas with carbon capture and storage as a route to commercialise gas reserves in the Carnarvon Basin that it purchased from US company Hess in 2017 but has not yet developed. Last month it also signed non-binding agreements to reinforce Woodside Energy's LNG projects with extra gas from 2027.

By Aidan Lea

Opec+ staying vigilant as uncertainty persists

The myriad of uncertainties that made 2022 an extremely challenging year for oil markets looks likely to continue to complicate the outlook for Opec+ in 2023.

The Opec+ producer group opted at its last ministerial meeting in December to roll over the nominal 2mn b/d cut to production targets that ministers agreed at the previous meeting in October. Delegates argued it was more prudent to take a 'wait-and-see' approach to production policy until there was better visibility about the months ahead, given that the market was facing a host of uncertainties, not least around the EU's then-looming Russian crude import embargo.

Going into this year, the situation is no clearer, with geopolitical and economic uncertainties continuing to complicate any attempts by the producer group to plan for the coming months. On the supply side of the equation, there is no more important issue than Russia, and the impact that the EU embargo on the import of Russian seaborne crude — and another on products due to come into effect on 5 February — will ultimately have on supplies.

That Russian supplies will be impacted appears almost a foregone conclusion among market watchers, but they differ over the extent to which they think supplies could be disrupted. For its part, Moscow has said it may have to cut output by 500,000-700,000 b/d in "some moments" in early 2023 because of the embargoes and the G7-led price cap. But the projections of disruption grow from there, with Opec saying last month it expects Russian oil output to drop by 850,000 b/d to 10.1mn b/d in 2023, while the IEA sees a more dramatic 1.4mn b/d fall.

In December, the month in which the EU embargo on Russian crude began, crude exports from Russian ports, not including CPC Blend or Urals crude supplied by Kazakh firms, fell by 520,000 b/d to 2.61mn b/d, according to Vortexa.

This figure could feasibly rise in the first quarter of this year, particularly if Russian president Vladimir Putin makes good on his repeated threats to cut off any companies or traders that abide by the price cap. Such a move would not necessarily make economic sense, but some Opec+ delegates have warned that Moscow could retaliate by cutting supplies.

Ground-zero-Covid

What impact these losses ultimately have on markets will depend in no small part on China and the speed at which its economy, and in turn oil demand, recovers after Beijing abruptly removed its zero-Covid policy last month. The lifting of lockdowns will no doubt drive a recovery in Chinese demand, but delegates highlight that the surge in infection rates that the country is now experiencing will almost certainly keep a lid on growth in the short term, possibly until the second half of 2023.

And beyond China, oil markets are still contending with the looming threat of recession in much of the western world, as inflationary concerns and continued tight monetary policies curb demand. "Advanced economies are heading into a recession, led by the euro area and the UK," British bank Barclays says in its first-quarter outlook, noting that the US economy "will also likely contract".

The producer group argues that the decision to cut production targets late last year has helped balance oil markets. Opec+ aims to be proactive and pre-emptive, as Saudi energy minister Prince Abdulaziz bin Salman says, but not reckless. In theory, the group's decision to keep production targets unchanged will hold until it next meets — which it is not due to do at a ministerial level until 4 June. But, with Saudi Arabia and Opec+ having already shown a willingness to meet and take decisions at short notice, there should be no doubt that the group will step in to adjust production should the need arise.

By Nader Itayim

NEWS

New Iraqi refinery to start in March

Iraq's new 140,000 b/d Karbala refinery is on track to begin commercial operations in March and should be running at full capacity by August, according to oil minister Hayan Abdulghani.

Abdulghani gave the timeline during a visit to the refinery south of Baghdad, where trial operations began in September last year."The preliminary products, which includes gasoline, kerosine and diesel, from the trial phase of the refinery's first 70,000 b/d unit match the required specifications," Abdulghani said. "Mid-March has been set as the date for the beginning of commercial production, designed to gradually increase until reaching full capacity end of July."

Abdulghani said the refinery will have the capacity to produce 8mn-9m litres/d (50,000-57,000 b/d) of 95-octane gasoline but he said this could be increased to 12mn l/d (75,000 b/d) in the future. Karbala will cover 75pc of Iraq's domestic oil product consumption, he said, adding that the rest will be met locally once other new refineries are developed.

Karbala is Iraq's first new refinery in decades and was initially due on stream in 2018, but the project was beset by delays because of pressure on Iraq's finances, especially during the Covid-19 pandemic when oil prices plummeted. The refinery's production will meet European standards.
By Bachar Halabi

FCC work begins at Phillips 66 Borger refinery

Phillips 66 started maintenance activities Sunday on a fluid catalytic cracking unit (FCC) at its 147,000 b/d Borger, Texas, refinery.

Work commenced on 8 January and is expected to last through 1 February, according to a filing with state environmental quality monitors.

FCCs convert vacuum gasoil primarily to gasoline blendstocks.

Lukoil finds buyer for Italy's Priolo refinery

Russian private-sector oil firm Lukoil has agreed to sell the 320,000 b/d Priolo refinery in Sicily to a Cyprus-based investment fund for an undisclosed sum.

The deal with GOI Energy, a subsidiary of *Argus* New Energy Fund, ends months of uncertainty about the future of the refinery during which Lukoil has found it near impossible to gain access to credit to buy non-Russian crude. Since Moscow's invasion of Ukraine, the company has had to rely almost solely on its own crude to keep Priolo running, but that stopped being an option when EU sanctions on Russian seaborne crude imports took effect last month.

The Italian government held talks with a number of national and international groups about acquiring the refinery, with US investment firm Crossbridge Energy Partners among the interested parties. Rome sought to buy time by approving measures allowing it to put the refinery into temporary administration if necessary. It also secured assurances from Washington that banks lending money to the refinery would not run the risk of breaching US sanctions.

Priolo managed to take some non-Russian crude in December for the first time since April, but its overall imports still slumped to a 16-month low on the back of the EU embargo.

The new owner already has some refining expertise, with its investors owning a majority stake in Bazan, operator of Israel's 197,000 b/d Haifa refinery. GOI Energy has also formed a partnership with trading firm Trafigura to help secure feedstock for Priolo and provide working capital. Trafigura's involvement further strengthens its foothold in the Mediterranean downstream sector, after it acquired a 5pc stake in Italian refiner Saras in 2020.

Priolo is the second-largest refinery in the Mediterranean region and among the largest in Europe. Lukoil first became a shareholder in 2008. It has been unhappy with the plant's financial performance since at least 2013 and had started attempts to sell in 2017, long before the war in Ukraine. The firm expects the deal with GOI Energy to close by the end of March.

Argus New Energy has no connection with *Argus Media*.
By James Keates

Coal vessel backlog continues off Polish ports

A flotilla of thermal coal-carrying vessels continues to await entry to Polish ports as a supply crunch in the country has eased because of strong imports, while demand has been subdued owing to mild weather.

It is estimated that nearly 1mn t of thermal coal on board several vessels is waiting offshore ports in Gdansk and Gdynia alone, according to sources.

The bottleneck eased slightly during Christmas and the New Year but some vessels remain offshore, having awaited entry to Gdansk for nearly two months. This comes as Poland's

NEWS

shift from inland imports from Russia to seaborne deliveries strained its logistics, sources at Polish ports said.

Many vessels were shipped to Poland speculatively without port booking arrangements, according to a terminal operator in Gdansk.

"There is plenty of floating coal storage here now," the source said.

Poland has imported 1.4-1.6mn t/month of seaborne coal — including coking coal — since September, about double the monthly volume from earlier in 2022, shipping data show. But the actual figure for imports is believed to be higher still as significant volumes of Kazakh coal are being imported from Russian and Latvian ports on small vessels, which do not show up in the shipping data.

Each port has its own specific reason for the vessel bottleneck, but a lack of coal storage capacity and infrastructure to transport coal from ports to inland end-users are the key reasons for congestion. Poland's largest coal terminal, Northern Port in Gdansk, discharges vessels continuously on rolling backs. But limitations with storage and transport out of the port affects its ability to import coal for smaller importers. In the other Gdansk terminal there is a lack of storage space, while some ports also cited shortages of labour for coal discharge.

The high imports come at the time when unseasonably mild and windy weather in the last three weeks reduced demand for coal.

"Currently power generators are well stocked with coal", a coal buyer at a Polish utility said. Polish power plants at the end of November had more than 5.2 mn t coal in stock, 15pc more than in mid-2022 and 5pc more than in November 2021.

Polish climate minister Anna Moskwa said in late December that Poland's government-controlled coal importers PGE Paliwa and Weglokoks will continue to import coal to Poland throughout 2023. PGE Paliwa alone currently imports approximately 1mn t/month.

By Tomasz Stepien

Brazil's Parana ports handled record cargo

Cargo handling at Brazil's two main Parana state ports ended 2022 at a record 58.4mn t, led by higher exports.

Cargo handling at Brazil's second largest port, Paranagua, and at the smaller Antonina port, both in southern Parana state, rose by 1.5pc last year from 2021, led by exports, according to the port authority. Cargo handling fell by 2pc in December from a year earlier.

Corn exports increased to 5.1mn t last year from 777,850t in 2021, while cellulose shipments rose by 10pc to almost 811,600t. Sugar exports increased by 4pc to 5.1mn t.

Fertilizer imports decreased by 13pc to 9.9mn t. Soybean exports were down by 24pc to 9.9mn t.

This is the largest yearly volume ever handled by the Parana ports. The previous combined record was 57.5mn t in 2021.

Paranagua alone last year handled 57.1mn t while Antonina handled 1.3mn t.

Combined cargo handling at the ports fell by 2pc to 4.4mn t in December from 4.5mn t in December 2021, according to the port authority data. Imports dropped to 1.6mn t, down by 23.9pc from the same month a year prior. Fertilizer handling fell by 45pc to almost 596,400t.

Exports rose to 2.8mn t last month, up by 17pc from December 2021. Soybean shipments from the ports in Parana decreased by 43pc to almost 371,500t. Corn exports rose to 577,600t from 63,400t in 2021.

The Parana state ports also move other commodities such as fuel, wheat and vegetable oils, as well as industrial goods.

By João Petrini

Asia-Pacific fuel oil tenders

Indian state-controlled refiner HPCL issued a tender offering low-viscosity fuel oil (LVFO) and high-sulphur fuel oil (HSFO) for loading from Visakhapatnam (Vizag) over 29 January-2 February. It offered 7,000t (45,150 bl) of 180cst fuel oil and 18,000t of LVFO.

The reason for the offer could not be confirmed with HPCL, but its refinery run rates are likely near maximum, said a market participant. The 180cst fuel oil cargo will have a typical sulphur content of 3.2-3.4pc, and the LVFO cargo will have a typical sulphur content of 3.6-3.8pc. HPCL stated in its tender that it will provide extra quantities of LVFO but not for 180cst fuel oil. The pricing basis for the cargoes will be on the average of Singapore spot 180cst HSFO assessments for five days, centered around the bill of lading date. Bids must be submitted by 9 January and will remain valid until the same day. HPCL last sold 30,000t-35,000t of HSFO for 22-25 January loading from Mumbai. The cargo had the typical 300-350cst viscosity and 4-4.2pc sulphur, and was priced on the average

NEWS

of Singapore spot 380cst HSFO assessments. The tender closed on 5 January with same-day validity, but the results could not be confirmed.

Low-sulphur fuel oil (LSFO) spot ex-wharf offers for January-loading cargoes were around a $22-$25/t premium to Singapore spot 0.5pc sulphur marine fuel assessments, said traders.

South Korean petrochemical producer Hyundai Chemical is considering shutting its Daesan-based heavy residual cracker in February probably for 3-5 months, amid persistently eroding cracker production margins. But residual exports are not to be expected, said a source close to the company, as there was already no fuel oil fed to the cracker previously because of weak naphtha margins. Average naphtha cracker-based margins in 2022, according to *Argus*, settled at a negative $237/t, a far cry from $96/t in 2021 and $310/t in 2020.

ANNOUNCEMENTS

Proposal to rename Los Angeles HSFO monthly avg price

Argus proposes to rename monthly and quarterly average residual fuel oil bunker assessments used on *Argus Direct* and other electronic delivery mechanisms to provide more detailed information about the sulphur content and mode of delivery.

Fuel oil bunker 380cst spot LA monthly avg; code: PA5000057 would be renamed Fuel oil bunker 3.5%S 380cst Los Angeles ex-wharf monthly avg.

Fuel oil bunker 380cst spot LA quarterly avg; code: PA5000182 would be renamed Fuel oil bunker 3.5%S 380cst Los Angeles ex-wharf quarterly avg

Argus will accept comments on this proposal until 19 January. To discuss comments on this proposal, please contact Stefka Wechsler at stefka.wechsler@argusmedia.com or +1 347 322 7952. Formal comments should be marked as such and may be submitted to marinefuels@argusmedia.com and received by 19 January. Please note, formal comments will be published after the consultation period unless confidentiality is specifically requested.

Proposed early close: Asia-Pacific marine fuels, 20 Jan

Argus proposes to advance the timestamp of the Singapore, South Korea and Sydney bunker assessments in the Argus Marine Fuels report to 15:30 on Friday 20 January, the last publication day before public holidays in Singapore, because of a potential lack of representative market activity.

Argus will accept comments on this proposed change until 16 January. To discuss comments on this proposal, please contact Sammy Six at sammy.six@argusmedia.com. Formal comments should be marked as such and may be submitted by email to marinefuels@argusmedia.com and received by 16 January. Please note, formal comments will be published after the consultation period unless confidentiality is specifically requested.

ANNOUNCEMENT

Publishing dates

There will be no marine fuel prices and commentary for the following regions on these dates:

- 9 January for Japan
- 16 January for North America and Latin America
- 23-24 January for Singapore, South Korea and Sydney
- 23-27 January for China
- 20 February for North America and Latin America
- 23 February for Japan
- 23-24 February for Russia
- 8 March for Russia
- 21 March for Japan

ANNOUNCEMENTS

Argus successfully completes annual Iosco assurance review

Argus has completed the 11th external assurance review of its price benchmarks covering crude oil, oil products, LPG, chemicals, thermal and coking coal, natural gas, biofuels, biomass, metals, fertilizers and agricultural markets. The review was carried out by professional services firm PwC. Annual independent, external reviews of oil benchmarks are required by international regulatory group Iosco's Principles for Oil Price Reporting Agencies, and Iosco encourages extension of the reviews to non-oil benchmarks. For more information and to download the review visit our website https://www.argusmedia.com/en/about-us/governance-compliance

Argus *Marine Fuels* is published by Argus Media group

Registered office
Lacon House, 84 Theobald's Road, London, WC1X 8NL
Tel: +44 20 7780 4200

ISSN: **2051-7165**

Publisher
Adrian Binks

Chief operating officer
Matthew Burkley

Global compliance officer
Jeffrey Amos

Chief commercial officer
Jo Loudiadis

President, Oil
Euan Craik

Global SVP editorial
Neil Fleming

Editor in chief
Jim Washer

Managing editor
Jim Kennett

Editor
Stefka Ilieva
Tel: +1 646 376 6139
marinefuels@argusmedia.com

Customer support and sales:
support@argusmedia.com
sales@argusmedia.com

London, Tel: +44 20 7780 4200
Houston, Tel: +1 713 968 0000
Singapore, Tel: +65 6496 9966

WEEKLY ADDENDUM: IMO 2020 COMPLIANT MARINE FUELS AND BLENDSTOCKS

Argus selected 0.1%S, 0.2%S and 0.5%S fuels				
Region	**Product**	**Delivery method**	**Volume *t***	**Price *$/t***
Asia-Pacific/Middle East	Singapore fuel oil 0.5%S, cargo	fob	20,000-40,000	553.06
	Singapore LSFO 0.5%S, bunker	dob	500-3,000	590.74
	Singapore MGO 0.1%S max	dob	50-500	-
	Singapore gasoil 0.25%S max	fob	20,100-33,500	798.69
	Singapore gasoil 0.5%S max	fob	20,100-33,500	797.92
	Zhoushan Bunker Index fuel oil 0.5%S, bunker	dob	300-3,000	591.50
	Fujairah MGO 0.1%S max	dob	50-100	1117.00
	Fujairah fuel oil 0.5%S, barge	fob	4,000-7,000	570.50
	Fujairah fuel oil 0.5%S, bunker	dob	500-3,000	588.50
	Mideast Gulf gasoil 0.2%S max	fob	30,000-60,000	745.25
	Mideast Gulf gasoil 0.5%S max	fob	30,000-60,000	737.42
Europe	ARA MGO 0.1%S max, bunker	dob	10-200	839.06
	Rotterdam ECA-compliant fuel oil 0.1%S max	dob	10-200	826.56
	NW Europe MGO 0.1%S, barge	fob	1,000-5,000	825.81
	NW Europe fuel oil 0.5%S, barge	fob	1,000-5,000	504.13
	ARA fuel oil 0.5%S, bunker	dob	300-2,500	524.19
	NW Europe straight-run FO 0.5%S max	fob	25,000-30,000	537.94
	NW Europe VGO 0.5%S max	cif	25,000-30,000	599.53
	Western Mediterranean VGO 0.5%S max	cif	25,000-30,000	596.06
Russia	Baltic Sea - St Petersburg fuel oil 0.5%S, bunker	dob	-	
	Baltic Sea - St Petersburg ECA-compliant fuel oil 0.1%S max	dob	min. 50t	703.75
	Baltic Sea - St Petersburg MGO 0.1%S max	dob	min. 50t	807.50
	Baltic Sea - Ust-Luga fuel oil 0.5%S, bunker	dob	-	
	Baltic Sea - Ust-Luga ECA-compliant fuel oil 0.1%S max	dob	min. 50t	706.25
	Baltic Sea - Ust-Luga MGO 0.1%S max	dob	min. 50t	810.00
	Black Sea - Novorossiysk fuel oil 0.5%S, bunker	dob	-	
	Black Sea - Novorossiysk MGO 0.1%S max	dob	min. 50t	830.00
	Black Sea gasoil 0.5%S max*	fob	5-35,000	na
	Black Sea gasoil 0.2%S max*	fob	5-35,000	na
	Black Sea VGO 0.5%S max	fob	30,000-35,000	555.00
Americas	US Gulf light cycle oil 0.5%S max, barge	delivered	3,500-14,000	810.63
	US Gulf VGO 0.5%S max vs WTI, barge	delivered	5,900-14,900	562.67
	US Gulf VGO 0.5%S max vs WTI, cargo	delivered	22,200-59,400	574.46
	US Gulf fuel oil 0.5%S, barge, $/bl	fob	40,000-100,000 bl	80.30
	US Gulf fuel oil 0.5%S, barge, $/t	fob	5,500-16,000 t	540.74
	Houston fuel oil 0.5%S, bunker, $/t	ex-wharf	500-2,000	542.50
	US Gulf heating oil 0.2%S max, waterborne	fob	27,150-34,000	612.46
	Houston MGO 0.1%S max	ex-wharf	100-300	898.88
	New York fuel oil 0.5%S, barge, $/bl	delivered	40,000-100,000 bl	83.30
	New York fuel oil 0.5%S, barge, $/t	delivered	5,500-16,000 t	560.94
	New York fuel oil 0.5%S, bunker, $/t	ex-wharf	500-2,000	584.38
	New York heating oil 0.2%S max, cargo	delivered	27,150-47,600	756.62
	New York MGO 0.1%S max	ex-wharf	10-200	949.38
	New York MGO 0.5%S, barge, ¢/USG	fob	40,000-100,000 bl	242.88
	Los Angeles MGO 0.1%S max	ex-wharf	10-200	956.38
	Los Angeles fuel oil 0.5%S, bunker	ex-wharf	500-3,000	647.50
	Panama fuel oil 0.5%S, bunker, $/t	ex-wharf	200-1,200	623.63

**weekly prices*

argusmedia.com

Argus Green Ammonia Strategy Report

Fulfil the exciting potential of this fast-developing market

Argus is excited to announce the groundbreaking launch of the *Argus Green Ammonia Strategy Report*. Our green ammonia expertise will enable you to capitalise on the market's opportunities and navigate its hurdles, challenges and risks to build your own successful strategy.

Key benefits

Understand the key market and non-market influences driving the development of ammonia as a fuel.

+ **Discover** which sectors are the most promising for the use of ammonia for fuel, and why.

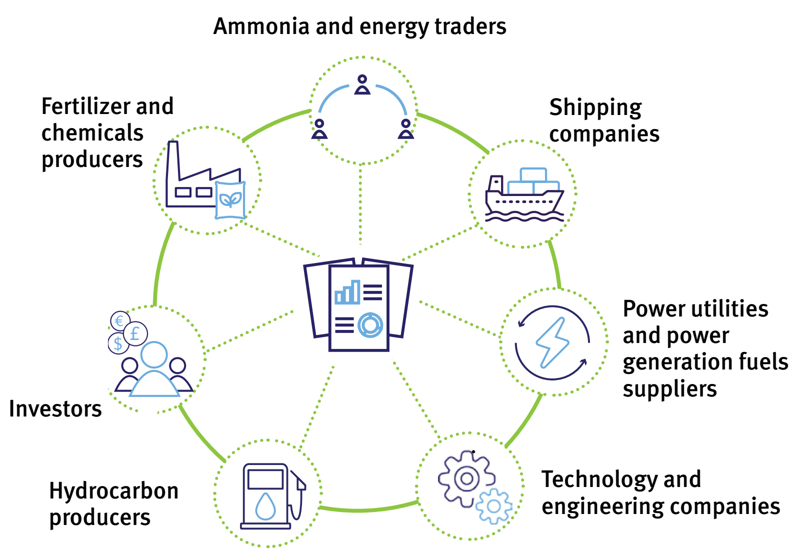
+ **Develop** your understanding of the economics of blue and green ammonia production, and how they will evolve in the future.

Assess the existing ammonia market, its buyers, suppliers and infrastructure.

+ **Quantify** the potential size of the future 'ammonia for fuel' market using robust underlying data developed by Argus' unique multi-commodity, multi-disciplined team.

+ **Enhance** your strategy to capitalize on this fast developing market.

Who should use this report?



Find out more and contact us

Ensure you gain competitive advantage by capitalising on the thought-leadership and experience we have in the green ammonia sector. See below for more details and to contact us:

Web: *View product webpage*

Brochure: *View our product brochure*

Email: *Contact us directly*

Market Reporting

Consulting

Events